Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Nondiscrimination in the Distribution of	)	CS Docket No. 01-7
Interactive Television Services Over Cable	)	

COMMENTS OF
THE NATIONAL CABLE TELEVISION ASSOCIATION

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The National Cable Television Association ("NCTA") hereby submits its comments in the above-captioned Notice of Inquiry ("Notice") proceeding addressing Interactive Television ("ITV") services. NCTA is the principal trade association of the cable television industry in the United States, representing cable television operators serving over 90 percent of the Nation's cable television households. It also represents over 100 cable program networks, as well as equipment suppliers and providers of other services to the cable industry. NCTA's members have a keen interest in making certain that ITV services – however defined – are developed and deployed in a timely manner without unwarranted government regulation.

Cable companies and many others are in only the initial stages of developing – let alone deploying – a variety of services that might come under the umbrella term "Interactive Television" or "ITV." However defined, ITV services are in their nascency. Their development is nowhere near as far along as cable modem services, which the Commission has wisely refrained from regulating in part because of their incipient nature.

In the case of ITV, there is simply no basis for assuming a problem and proposing regulatory "solutions." By creating a regulatory overhang, or even the threat of one, such an exercise could actually discourage investment in ITV services and force interactive offerings into categories and structures that are not consonant with market demand and technological developments. As the Cable Services Bureau recognized in the context of proposals to regulate cable modem service, government-mandated sharing of facilities creates "a significant and credible risk that rapid deployment of those services to all Americans would be greatly compromised" because it "could reduce the financial incentives and the build-out capital for cable companies to make large investments necessary to build out their systems."[1] The same rationale fits investment in the development of ITV services and facilities.

I. INTRODUCTION AND SUMMARY

This is a peculiar – and misguided – proceeding. The Commission is asking for comments describing and defining in advance a service – "interactive television" – that for the most part does not yet exist. And at the very same time, it is asking whether and how it should *regulate* this embryonic and hypothetically defined service. Such a premature urge to regulate emerging services is unprecedented. It is at odds with the regulatory restraint with which the Commission has – successfully so far – approached new technological developments.

Unfortunately, while efforts to define and propose a regulatory scheme for interactive television at this time are inherently speculative and hypothetical, the effects that such FCC activity will have on investment, innovation and the services available to consumers are real and predictable. Merely by sending a signal that nascent technologies and services are in its sights as

[1] Cable Services Bureau, Federal Communications Commission, *Broadband Today*, A Staff Report to William E. Kennard, Chairman, Federal Communications Commission, on Industry Monitoring Sessions Convened by Cable Services Bureau (1999) at 45 ("*Broadband Today*"). Commenting on Canadian efforts to regulate cable modem service, the Bureau observed that "[t]his type of regulatory delay, and its resulting uncertainty, threatens to slow down the nascent broadband industry and would be inimical to the intent of the 1996 [Telecommunications] Act." Id.

possible candidates for regulation, the Notice has lowered a dragnet over this emerging, but struggling, new industry.

No one can quibble with the Notice's proposition that in order to "assess the possibilities for discriminatory behavior . . . it is important to understand clearly how ITV providers will deliver their services to consumers, including what type of contractual arrangements will govern this delivery."[2] But such a clear understanding is *impossible* at this early stage of ITV development. Many companies have proposals and business plans that they *hope* will evolve into viable services for mass-market television viewers. While some are further along than others, the marketplace has barely begun to determine which, if any, of these models will ultimately become mainstays in consumers' homes.

Indeed, it seems wholly artificial and pointless at this stage to try to classify and categorize all these vastly different services, models and business plans under the rubric of "interactive television." It is especially pointless and inappropriate, and counterproductive to industry development, to try to formulate an appropriate set of regulations for each category to prevent conjectured anticompetitive conduct.

Some ITV services described by the Commission are expected to be delivered by program networks carried by a cable system, along with a particular network's video programming stream. In some cases, the described services would be directly related to the accompanying video programming. In other cases, they would be unrelated to that programming. Some services, such as those that allow viewers to send and receive e-mail and access the Internet using their

[2] Notice at ¶14.

television sets, neither are delivered in the signals of programming networks nor do they have anything to do with any particular network's programming.

Some services described by the Notice use cable systems not only to deliver information *to* cable subscribers but also to obtain information back *from* subscribers. Other services download information to the cable system or to subscribers' television sets or set-top boxes but require no upstream transmission of information back to the service provider.

These services have a single common trait – that television viewers can electronically interact with and manipulate material that is provided to them over their television sets. But it is wrong to assume that they all provide cable operators with similar incentives, opportunities and means to discriminate against unaffiliated providers of such services. Nor does it make sense to assume that there is some single identifiable jurisdictional basis for regulating these otherwise dissimilar services.

The Notice's premature threats to regulate these services seem, in any event, to be based on fundamentally flawed predictions and presumptions. The Notice piles on the hypotheticals: if it turns out that cable systems are far superior to other means of providing interactive television services, and if cable operators own or are affiliated with particular interactive television services, these operators can – somehow – be counted upon to discriminate against unaffiliated services in an anticompetitive manner. But, as the economic and antitrust analyses accompanying these comments explain,[3] there is no reason to expect *any* of the "ifs" or the results to occur.

At this stage of the game, there is no reason to expect that cable facilities will be the dominant means of providing the array of interactive services envisioned by the Commission (or

[3] *See* E. Elhauge, "Analysis Regarding FCC Notice of Inquiry on ITV Services" and M. Schwartz and J. Gale, "The Appropriateness of Nondiscriminatory Access Regulation for Interactive Television," both of which are attached to these comments.

other interactive services that might develop in the marketplace). Telephone lines and wireless facilities are being used today to provide the prototypes of such services. Indeed, neither WebTV nor AOLTV relies on cable facilities. There is no evidence that cable is in the process of becoming an "essential facility" for the provision of interactive services. There is no reason to cloud the marketplace development of such services by developing regulations that presume such cable predominance.

Moreover, even if cable facilities were ultimately to become very significant to providers of interactive services, it would be wrong to presume that cable operators would generally have an anticompetitive incentive or opportunity to discriminate against unaffiliated providers. It is unlikely that cable operators could, by discriminating against unaffiliated providers of interactive services, foreclose competition in and monopolize of the provision of such services. And therefore they would have little incentive to discriminate against – and forgo revenues from – unaffiliated services likely to be attractive to their subscribers in order to favor their affiliated services. In these circumstances, marketplace negotiations between cable operators and programmers already provide an ample basis for ensuring that unaffiliated programmers are not subject to anticompetitive discrimination

Regulations that forced cable operators to allow the use of their facilities by all unaffiliated interactive services on the same terms and conditions as any affiliated services would only have an adverse impact on the development of such services. First, if the carriage of affiliated services triggered non-discrimination obligations, cable operators would be deterred from investing in the development of such services. At this early stage of development, any such reluctance to invest would be fatal to the ongoing efforts of struggling interactive service providers.

Second, if cable operators nevertheless *did* choose to invest in and carry affiliated interactive services, a requirement to carry all unaffiliated services on nondiscriminatory terms would distort, not promote, marketplace competition. Absent the clear likelihood of anticompetitive conduct, there is no reason to replace marketplace *negotiation* between cable operators and service providers with a guarantee of carriage on nondiscriminatory terms. In a competitive marketplace, the rates, terms and conditions of agreements between service providers and cable operators for carriage on cable systems are likely to vary on a case-by-case basis. The negotiated terms differ because the services differ – for example, in their perceived value to the cable system and its subscribers and in their costs and efficiency of operation.

There is nothing procompetitive about giving every interactive service that gets beyond the drawing boards guaranteed use of a cable operator's facilities. Such a guarantee does not promote efficiency in the development of services – and the use of cable systems to provide services – that best meet the needs and interests of consumers. It promotes exactly the opposite.

Most of the services envisioned by the Commission appear to be "cable services," under the definitions of the Communications Act. Since nothing in Title VI specifically authorizes the Commission to regulate these services in any of the ways suggested by the Notice, and since several Title VI provisions would preclude such regulation, the Commission would have no authority to impose such regulation even if there were a policy reason for doing so. Even if cable operators were someday to offer interactive services that were *not* "cable services" but met the statutory definitions of "information services," it is not clear that the Commission would have statutory jurisdiction or, under its precedents, a legal basis for mandating nondiscriminatory carriage of all competing services.

Indeed, the First Amendment would seem to preclude the very regulations suggested by the Notice which would interfere with cable operators' constitutionally-protected editorial judgments.

But jurisdictional arguments are almost beside the point – because there is no public policy reason to even contemplate regulating "interactive television" at this time. There may be no harm in speculating about how interactive services might develop or monitoring real developments. But there is plenty of harm in using such crystal ball gazing as a basis for proposing to regulate such services and to do so with the "what if" promiscuity favored by the Notice.

If, as the Notice suggests, interactive services someday "could provide tremendous value to American consumers," the best way to foster that outcome is to allow the marketplace and emerging technology to determine which services are developed and which services succeed. Threatening to regulate such services today, when they are either nascent, imagined or beyond the scope of anyone's imagination, is likely to postpone or snuff out their emergence before they even reach the marketplace.

II. THE DEVELOPMENT – LET ALONE THE DEPLOYMENT – OF ITV SERVICES IS IN A NASCENT STAGE

There is no general consensus about what "interactive television" encompasses today or will encompass in the future – largely because "interactive television" is still, for the most part, just a gleam in the eye of its hopeful providers. While some predict that these new interactive services will gain consumer acceptance and will generate significant new revenue streams,[4] others

[4] "Smarter TV Will Add $25 Billion to the Industry by 2005, According to Forrester," *Forrester Research*, July 21, 2000.

suggest that consumers are not particularly interested in interactivity over television.[5] But whatever its promise, the reality today is that ITV is still very much in its infancy.

The vast majority of cable customers have no opportunity today to sample *any* of these interactive concepts through their cable system.[6] In 2001, cable operators are just starting to introduce some of these interactive services into limited areas, experimenting with a range of interactive television offerings.

The Notice makes several assumptions about interactive television that imply some sort of marriage between the Internet and television. Indeed, ITV has been viewed by some as synonymous with cable modem service over a television set. And it is the case that some services, like WorldGate, will allow cable customers to view web pages on their television screens. But interactivity on cable today and in the foreseeable future has little to do with the Internet.[7] Interactivity occurs primarily between a viewer and information stored on a television set or set-top box, or at a cable system's headend.

If cable operators are not currently providing Internet-based ITV services to any significant extent, what sorts of services *are* they providing or contemplating? At this nascent stage of development, a number of different services are being deployed or developed – most of which have nothing in common with each other except the interactive role of the customer, and none of which warrant even the contemplation of regulation at this time:

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5 "Who Wants Their ITV?," *Industry Standard*, Jan. 15, 2001 at 138. ("Vegetating in front of the TV while flipping through channels is still a popular activity with many people. Seven out of 10 adults aren't interested in any form of interactive television, according to a recent Cyber Dialogue survey of 1,000 American adults.") Yet others have expressed concern that a recession could delay the rollout of ITV products. "What Gets Cut? Cable's New Digital Services Could Be Victims of Recession," *CableWorld*, Jan. 29, 2001 at 22.

6 Some have estimated that fewer than 1 percent of cable customers can obtain interactive television in North America beyond interactive program guides. *See* "ITV: Finally a Prime-Time Player?" http://www.zdnet.com/zdnn/stories/news/0.4586.2660254-2.00.html, *quoting* Forrester Report.

7 "Remember: I in ITV Isn't for Internet," *Multichannel News*, Feb. 12, 2001 at 42.

- **<u>Interactive program guides ("IPGs")</u>:** Interactive electronic program guides constitute one type of interactive service that cable operators are expected to launch. Interactive electronic program guides permit customers to select and sort television programming by time, theme, channel and other criteria. IPGs also can provide supplemental information about the programs being shown, and allow a customer to choose to record a particular program.[8] Other options may include interfaces with pay-per-view and video-on-demand programming to allow customers to select and purchase events with a remote control.

A variety of companies are offering IPGs, including Gemstar/TV Guide and WorldGate,[9] either as a stand-alone service or as one element of their overall interactive offerings (like AOLTV). The information included in an interactive IPG is downloaded to cable and satellite set-top boxes or resides in a server at the headend. Interactivity with program guides takes place between the viewer and the set-top box, the television set, or the server.

- **<u>Personal Video Recorders ("PVRs")</u>:** PVRs, like VCRs, enable users to record, store and playback programming. But they also offer several improvements over VCRs. Unlike VCRs, which use videotape, PVRs use computer hard-drives which enable users to pause a live television show, to instantly play it back, and to skip over commercials.[10]

Initially, PVRs have been available as stand-alone devices, which can be used by any television viewer. The two companies most often mentioned as offering these devices are TiVo and Replay, each of which incorporates a program guide – delivered via telephone line – in its

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8 *See* "Interactive TV: The Market Payoff and Playoffs, " *Multichannel News*, Dec. 4, 2000 at 131; "The Many Roads to Interactive TV," *CTAM Magazine*, Fall 2000 at 7.

9 WorldGate and several MSOs have formed a venture to develop an IPG called TV Gateway. "TV Gateway Wins Some Subs," *Multichannel News,* February 9, 2001 at www.multichannel.com.

10 *See* "Interactive TV: The Market Payoff and Playoffs, " *Multichannel News*, Dec. 4, 2000 at 131; "The Many Roads to Interactive TV," *CTAM Magazine*, Fall 2000 at 7.

service. But the two principal DBS providers, DirecTV and EchoStar, are each now incorporating PVRs in their set-top boxes, and at least one cable operator has announced plans to do the same.[11]

- **<u>Video on Demand ("VOD")</u>:** VOD, considered an "on demand" type service, is a more advanced form of pay-per-view program offerings. VOD may also be offered in conjunction with PVRs, using PVRs' storage capability in set-top boxes.[12] VOD enables viewers to order and watch movies on demand, and to pause, rewind or fast-forward them.[13]

Even though VOD has been discussed for years, commercial availability is only just beginning. Several major MSOs have begun introducing interactivity to their customers by offering VOD in limited markets.[14] For example, after several months of testing video-on-demand, AT&T Broadband introduced VOD to paying customers only last fall.[15] It reportedly plans to offer VOD to other digital customers this year.[16] DIVA, one of the leading VOD suppliers, has been launched in a handful of markets: Duluth, Georgia and Los Angeles, California (Charter systems); Rockford, Illinois, Columbus, Ohio, and Evansville, Indiana (Insight Communications); and Atlanta, Georgia (AT&T).[17]

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[11] *See* "Four in Rhythm on Project Disco," *Electronic Media*, Oct. 9, 2000 at 17 (discussing the plan of Charter Communications, Motorola, Replay TV and Vulcan Ventures to develop and integrate digital video recording capabilities into advanced digital set-top boxes).

[12] *See* "Interactive TV is Spreading Through Couch-Potato Land," *Los Angeles Times*, Dec. 1, 2000 at C1. ("Cable operators are experimenting with an alternative approach, one that gives customers a powerful digital recorder that can store any kind of audio or video program.")

[13] "VOD Takes Content Hit: Buena Vista Pulls Titles," *Multichannel News*, Feb. 12, 2001 at 1.

[14] "Video on Demand Arrives – Sort Of," *The Wall Street Journal*, Jan. 29, 2001 at B1.

[15] "Now Showing, *The Atlanta Journal and Constitution,"* Nov. 28, 2000 at Q1.

[16] *Id.*

[17] www.divatv.com/partners/part_deploy.html.

Comcast has announced plans to rollout VOD in 10 to 12 markets during 2001 and is currently conducting VOD trials in certain markets. AOLTimeWarner and Cox are also offering VOD to various communities.[18] Nevertheless, the *Wall Street Journal* reports that "executives don't expect video-on-demand to be widely available for at least five years, given the heavy costs of installing the necessary equipment and the need to upgrade cable and telephone networks."[19]

- **<u>Enhanced TV Services</u>:** Enhanced television services offer viewers the ability to obtain data related to the television program and advertising that they are watching. Enhanced commercials enable customers to express an interest in a commercial, as it is playing, by pressing a button or a remote control when an icon appears during the ad. Enhanced television can also offer the opportunity to play along with game shows, participate in opinion polls and surveys, and get up-to-the-minute news and weather.

The first enhanced television services are just beginning to be rolled out. For example, Wink – the leading enhanced programming company – is available on 29 cable systems covering 37 communities.[20] These cable homes (which total about 600,000), [21] include Charter Communications' 280,000 customers, as well as some individual system deals with other MSOs.[22] Respond TV, which also plans to offer interactive advertising, has not yet launched on any cable

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[18] "Video on Demand Arrives – Sort Of," *The Wall Street Journal*, Jan. 29, 2001, at B1. Time Warner Cable currently offers VOD in 3 markets. It plans to add another 10 to 15 markets by year-end. "AOL Time Warner Reports Strong 4th Quarter Gains for AOL, Cable," *Communications Daily*, Feb. 1, 2001 at 8.

[19] "Video on Demand Arrives – Sort of," *The Wall Street Journal*, Jan. 29, 2001 at B1.

[20] www.hoovershbn.hoovers.com/bin/story, Feb. 1, 2001.

[21] "Wink Eyes 6 Mil. Homes; Investors Drub Stock," *Kagan Broadband*, Feb. 1, 2001 at 1.

[22] *Id*. Adelphia launched Wink on its Buffalo, New York area systems in late 2000 – the first of Adelphia's customers to get interactive television. "2-Way TV Hits WNY," *The Buffalo News*, Dec. 24, 2000 at C5. AOL TimeWarner has introduced Wink enhancements to customers in New York and Los Angeles. *Id.* Comcast is also conducting trials of Wink in undisclosed markets.

systems.[23] Adelphia and Insight have announced deals with Commerce.TV, which also provides an electronic mall and, in the future, will provide enhanced television and advertising.[24]

- **Internet Access:** Several stand-alone products today can access the Internet and display Internet content on a television screen, most notably Microsoft's WebTV and AOLTV. Cable subscribers can use these services today – but they, like everyone else using the services, must use telephone lines to access the Internet content and any other content that may be provided by these services.

WebTV requires use of a telephone line and a WebTV receiver, available at retailers like Circuit City and Wal-Mart, or offered in conjunction with EchoStar's DBS satellite receivers. WebTV enables users to access the Internet, send e-mail, and use enhanced features of television shows such as "Jeopardy."[25] AOLTV offers customers interactive navigation features, the ability to send and receive e-mails, exchange instant messages, browse the Internet and chat over a television set. In addition, AOLTV enables users to interact with enhanced programming services.[26] To get the service, AOLTV customers must purchase a set-top box from a retailer and pay a monthly fee to AOLTV. AOLTV relies on a telephone line to connect its customers to interactive content and currently does not work with a cable modem or DSL.[27]

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[23] "Latest Layoff Victim: Respond TV," *Multichannel News*, Feb. 9, 2001 (noting that Respond TV, which laid off a number of employees, still is planning to launch on AT&T Broadband sometime this year.) www.multichannel.com.

[24] "Commerce.TV in deal with cable operator," *Boston Globe*, Feb. 27, 2001 at D15.

[25] See http://www.businessweek.com/bwdaily/dnflash/sep2000/nf2000098-223.htm. WebTV, which was launched in 1996, has sold only about one million boxes. "AOL to Launch Set-Top Boxes that Let Users Chat Online While Watching TV," *The Wall Street Journal*, June 19, 2000 at B13.

[26] Letter to Deborah Lathen, Chief, Cable Services Bureau, Federal Communications Commission from AOL and Time Warner, dated Sept. 29, 2000 (hereinafter "Sept. 29, 2000 AOL letter").

[27] "Channel and Web Surfing, with AOLTV," *New York Times*, Jan. 18, 2001 at G1.

Some cable operators are experimenting with or contemplating the provision of Internet access over television sets, but only a handful of cable customers can receive this service today. WorldGate Communications, which provides Internet access over a television set via servers at cable headends, reportedly had about 68,000 cable customers at the end of last year.[28] It has agreements with four of the top MSOs – Adelphia, Charter, Comcast and Cox.[29] AT&T and WorldGate announced late last year that they would introduce interactive television as a digital cable enhancement in three markets: Cedar Falls and Waterloo, Iowa and Tacoma, Washington.[30]

Today, virtually no cable set-top boxes that have been commercially deployed in the field use a cable modem for interactive services. Cable customers, therefore, even assuming they are customers of a two-way cable system, interact using the "out-of-band" reverse data channel,[31] which has limited bandwidth of one to three megabits or, typically, much less. The out-of-band" reverse data channel carries all traffic used for a variety of other purposes from the set-top box to the headend equipment.

- **Local Content:** Some cable operators are experimenting with creating locally-oriented interactive sites. They offer customers information not available on the Internet but that provides an "internet-like" interactive experience. For example, Insight and Source Media have teamed up to offer a localized interactive TV portal.[32] Insight Communications customers in three

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[28] "ITV Promises Cash, Delivers Little," *Multichannel News*, Nov. 27, 2000 at 14.

[29] AT&T News Release, "AT&T Broadband and WorldGate Announce Interactive Television Deployment in Three Cities," Nov. 15, 2000; *Rocky Mountain News*, "After an Unsteady Beginning, Interactive TV Back in Picture," Nov. 7, 2000 at 5B. Comcast is offering WorldGate's service to cable customers in Willow Grove, Pennsylvania. www.wgate.com/news.

[30] *Id.*

[31] The out-of-band reverse data channel is typically located between channels 4 and 5 in the forward direction, and in a small slice of the return path bandwidth.

[32] http://www.srcm.com/overview.htm

Midwestern cities "can call up restaurant menus, show times at local theaters, local government information and stories from selected newspapers."[33]

III. THE NOTICE PROCEEDS FROM FAULTY ANALYTICAL PREMISES

A. The Notice's "Parade of Horribles"

As the foregoing demonstrates, many current (but limited) and proposed services may be called interactive television services. But at least one thing is clear: these services – however labeled – are in such an early stage of development that it is impossible to define them, let alone forecast what services will succeed in the marketplace, and who will be providing those services. In particular, there is no consensus on where data files will reside (at the headend, the server, or elsewhere), what the billing for services will look like, and what "affiliation" will mean for, say, PVR or ITV enhancement companies. Absent, too, is any sense that current deals have long-term economic viability. Thus, the Notice's speculation about supposed three-part architectures have nearly no use at this stage of the industry.

Nevertheless, despite these yawning uncertainties and the fact that others, in addition to cable companies, are rolling out or contemplating the deployment of ITV services, the Notice essentially focuses on cable as (a) a presumed "winner" and (b) a dominant one at that. With these two anchors planted firmly in mid-air, the Notice proceeds to posit a number of scenarios under which cable might achieve such dominance that, if a cable operator were affiliated with what the Notice calls an "ITV service provider," regulatory intervention might be warranted.

This technique is reminiscent of the "parade of horribles" law school professors would drag out to demonstrate that a student's answer would lead to absurd results. For example, by

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[33] "Interactive TV is Spreading Through Couch-Potato Land," *Los Angeles Times*, Dec. 1, 2000 at C-1.

piling hypothesis upon hypothesis, the Notice in various paragraphs posits a series of questions as follows:

- "If it turns out that only one delivery platform in each geographic area has the capability to provide the *most attractive* ITV services package,"[34] and
- "if the platform provider is vertically integrated with an ITV service provider,"[35]
- "then there would be the *potential* for anticompetitive behavior,"[36] and
- if the same factual predicates that Congress cited in the 1992 Cable Act were to apply to a distribution platform delivering ITV services,"[37] then
- some regulation of those distribution facilities *might* be warranted,"[38] and
- since "[o]ur understanding of the current state of technology *suggests* that the cable platform is likely to be the best-suited for delivering ITV services, particularly high speed services, for at least the near term,"[39] then
- "we adopt the *hypothetical assumption* that cable operators are likely to have the incentive and the ability to favor affiliated ITV service providers over non-affiliated ones,"[40] and since
- "we see the geographic market for ITV services as local and each cable operator having market power in the distribution of ITV services in its respective local service areas,"[41] then
- "if it were determined that operators of cable systems (or another delivery platform) had the incentive and ability to behave anti-competitively vis-à-vis ITV service providers … should [we] consider prohibiting those operators from discriminating between affiliated and unaffiliated ITV service providers,"[42] and, if we do,

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34 Notice at ¶1 (emphasis added).

35 *Id.*

36 *Id.* (emphasis added).

37 *Id.* at ¶2.

38 *Id.* (emphasis added).

39 *Id.* at ¶21 (emphasis added).

40 *Id.* (emphasis added).

41 *Id.* at ¶22.

42 *Id.* at ¶24.

- what would be "suggested procedures for evaluating claims by ITV service providers that a cable operator is charging a discriminatory price for access to cable facilities,"[43] and since

- "the cable operator might not be furnishing facilities to its affiliated ITV provider at a market rate, what benchmarks are available for evaluating discrimination claims,"[44] and

- "[we] *could* propose that, whenever a cable operator enters into a contract with an unaffiliated ITV service provider or with a video programmer for carriage of content that includes the ITV enhancement content of an unaffiliated ITV service provider, the contract parties agree that an unaffiliated ITV services provider has the *right to have an independent auditor determine whether the terms, conditions, prices or the performance of the contract by the cable operator are discriminatory*,"[45] and of course,

- "[in] order to assist the auditor in determining whether discrimination had occurred, the *cable operator would be required to retain all business practice and technical performance records* that are required to conduct the relevant audits"[46] which would be particularly helpful

- "if both affiliated and unaffiliated ITV providers have contracted with a video signal provider to enhance its programming, [because] it would be possible to require the cable operator to provide the same amount of 'enhancement bandwidth' to both,"[47] or, alternatively

- [i]n the case of an unaffiliated ITV provider partnering with a video programming network it might be feasible *to look at the ratio of ITV enhancement content bandwidth to video signal bandwidth* that the cable operator offers (with respect to other video signals) to affiliated ITV providers and to require that the cable operator offer the same capacity ratio to unaffiliated ITV services providers,"[48] but

- "if, at the margin, the cable operator did not have available capacity . . . [w]ould the public interest be better served by the unaffiliated service appearing on the cable system without the ITV enhancements or not appearing on the system at all?"[49] and

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[43] *Id.*

[44] *Id.*

[45] *Id.* at ¶40 (emphasis added).

[46] *Id.* (emphasis added)

[47] *Id*. at ¶26.

[48] *Id.* (emphasis added).

[49] *Id.* at ¶28.

- "what if adding an additional service provider's ITV enhancements could be accomplished at the cost of slightly degrading the quality of the video signal with which it is associated?"[50] and, last, but by no means least,

- is such "Commission protection of ITV services . . . within [its] statutory authority?"[51]

To review the host of suppositions upon which the Notice is based is to reveal its extreme, speculative basis for regulating – a tack that is wholly at odds with the agency's customary reluctance to regulate developing digital services. Whatever the motivation for hoisting cable as a regulatory piñata in this manner, its effect is to invite a regulatory exploration that bodes ill for a budding industry.

As we discuss below, some of the premises upon which the Notice rests – factual, economic, policy, or legal – are simply not credible at this stage of ITV development. In particular, we refute the Notice's syllogism that cable companies have worrisome market power[52] in some as-yet-to-be-defined market and that, if the facts indicate that any local ITV platform provider has market power *and* ITV affiliates, the economics indicate it should have a duty not to discriminate against unaffiliated ITV providers.[53] The Notice is wrong about its facts, logic, and economics as we demonstrate next.

B. The Factual Premises are Wrong

The first analytical problem with the Notice is its attempt to define Interactive Television. Despite acknowledging that "[t]he nature of ITV services is evolving rapidly, with constant and continuous technological changes and evolving business models making it difficult to specify a

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50 *Id*.

51 *Id*. at ¶43.

52 *Id.* at ¶19, 21-22.

53 *Id.* at ¶38.

definition," the Commission nevertheless proceeds to make the effort. But, as demonstrated by our earlier discussion, it is far too early for the Commission to define ITV, let alone propose to regulate it. Numerous services being developed could fall under the ITV rubric, but how they will be organized as a business or cable technology by the parties offering them is far from clear. Company plans – and not just cable company plans – are uncertain and must remain flexible to maximize innovation and prompt responses to consumer wants.

The Commission's proposed definition reveals a number of problems which can arise in trying to define ITV too early for regulatory purposes. For example, the Notice defines ITV as "a service that supports subscriber-initiated choices or actions that are related to one or more *video* programming streams."[54] But, even though that definition is video-related,[55] the Notice also acknowledges that some ITV services (*e.g.*, e-mail) won't be video related.[56] The Notice does not explain how to reconcile these differences. In addition, the Notice posits three presumably generic ITV "building blocks," and devotes substantial attention to "triggers." But these "building blocks" may or may not be part of all ITV offerings.[57] By using its "building blocks" hypothesis the Notice ignores the fact that ITV services – at least those now contemplated by cable operators – integrate content and transport. As a result, for example, there may be no separate and distinct ITV "transport" component which could be subject to regulation.

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[54] Notice at ¶6 (emphasis added).

[55] The definition discussion also asserts that video-related can mean related to video in general, and does not have to refer to any particular video stream. *Id.* at ¶17.

[56] *Id.* at ¶ 7.

[57] The Notice also includes a discussion (¶8) distinguishing the "video signal" component of ITV from the "primary video" signal used in the must-carry rules. However, elsewhere it is unclear if the Notice is suggesting that ITV would be covered by must-carry (¶27), or whether it would be a subject for retransmission consent negotiations (¶17). The Notice appears to argue for both.

1. There is No Definable ITV Market

Based on the earlier discussion of ITV service deployment, the answer to the Notice's question whether "the ITV services market [is] too nascent for Commission action?" is straightforward; there is no reason to believe that there even *is* such a thing as a definable "ITV services market." As a result, answers to most of the questions the Notice raises are unknowable at this point. There are many different technologies coming from many different directions which might provide the sorts of functionality defined as an ITV service. There is no ability to foresee who will be the technological winner, whether the winner will be any of the current technologies, or whether it will be some combination of current or new technologies.

It is also unclear whether there will be extensive local competition for ITV services or whether a marketplace demand for these services will develop. Because the content of revenue-generating ITV services is utterly unknown, it is impossible to determine – even on a conditional basis – what "nondiscrimination" would mean or how best to define it to further any regulatory purposes.

Indeed, the existence of regulation (or even the threat of regulation) itself can only impede and distort these services, thus altering the technological and economic future. Subjecting the cable industry to regulation has a serious likelihood of: (1) undermining any investment in the ITV business by cable operators or technology companies; and (2) freezing the format of ITV services or technology in a way that impedes technological progress or economic efficiency.

While the Notice indicates an awareness of most of these problems, it greatly underestimates them and is preoccupied with defining regulatory solutions. The Notice is correct, ironically, in pointing out that marketplace development in the future cannot be separated from regulatory decisions made today. Regulate first, in the absence of real products and services, and there will be no long-term development of such products and services.

2. Cable's Broadband Platform Will Not Necessarily Be the Dominant ITV Distribution Facility

The Notice proceeds from the premise that cable's broadband facilities are – and will continue to be – the dominant and preferred means for distributing ITV services.[58] There is today no basis at all for that presumption. Cable television is by no means the only entrant into the interactive arena. Many competitors are also beginning to offer interactive products making no use of cable facilities at all. And there is no evidence that they are especially handicapped in doing so.

DBS, for example, has begun offering – or has announced plans to offer – a variety of ITV services. DirecTV provides Wink interactive services free to 1.5 million satellite homes – more than twice what Wink reaches through all of the nation's cable systems combined.[59] And the DBS operator has teamed up with TiVo to provide a DirecTV box that tunes satellite signals and provides 35 hours of recording.[60] DirecTV in addition recently announced its "Ultimate TV" service. In partnership with Microsoft, UltimateTV will allow DirecTV customers to "pause, rewind, or fast forward through live TV, record an episode of 'Ally McBeal' while you watch Monday Night Football or play against contestants on 'Jeopardy!' or 'Wheel of Fortune.' You can send and receive e-mail messages or chat while watching TV or surf the Net…."[61]

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58 Notice at ¶¶2, 3.

59 "Wink Eyes 6 Mil. Homes: Investors Drub Stock," *Kagan Broadband*, Feb. 1, 2001 at 1.

60 "Non-cable Video on Demand Just Around the Corner," *San Jose Mercury News*, Jan. 14, 2001 at 1E.

61 *Id.*

EchoStar teamed up with WebTV to offer its customers a "DishPlayer" box that allows Internet access and includes a PVR.[62] EchoStar's Dish Network product allows customers to pause live TV shows, record up to 30 hours of programming from an electronic program guide, and order products such as pizza over their television set.[63] EchoStar plans to offer Wink to its customers as well later this year.[64]

Other companies offering interactive products are entering into deals with television set manufacturers. For example, Gemstar has agreements with RCA to include Gemstar interactive capability within RCA television sets using two-way radio. "The viewer's response will be carried by radio wave to a nationwide paging network to TV Guide Gemstar, giving it the ability to offer a service much like Wink that lets programs and advertisements offer more information or goods for sale."[65] Gemstar's Guide Plus and Guide Plus Gold have been installed directly into four million new television sets.[66] Zenith also recently unveiled its web-enabled television set, which offers e-mail, chat, Internet browsing and shopping, without the need for a set-top box.[67]

Cable will face competition in offering video-on-demand as well. Movie studios are exploring options – other than cable – for delivering first run movies to customers.[68] In fact, several studios are considering withholding their product from cable VOD distribution. Buena

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62 "Tube Participation," *Rocky Mountain News*, Nov. 27, 2000 at 1B.

63 "Non-cable Video On Demand Just Around Corner," *San Jose Mercury News*, Jan. 14, 2001 at 1E.

64 "Interactive Television Gets Nudge with Wink," *San Jose Mercury News*, Nov. 26, 2000 at 1F.

65 "AOL-Time Warner Rivals Preparing for Interactive TV Fight," *New York Times*, Sept. 11, 2000 at C1.

66 "Interactive Guides View for Dominance," *Advertising Age*, Jan. 15, 2001 at S14.

67 "Zenith Introduces Web-Enabled Interactive TV: Free Internet Access, No Set-Top Box," www.zenith.com/index.html (Jan. 6, 2001).

68 "Video on Demand Arrives – Sort Of," *The Wall Street Journal*, Jan. 29, 2001 at B1 (describing Sony test of movie service called "Movie Fly" which "[w]ill allow users to download and temporarily store films in their computers rather than view them as they stream through Internet connections.")

Vista Television, a Disney-owned studio, just recently "pulled its product from VOD services for the foreseeable future."[69] Several studios are reportedly "keeping a close eye on the development of alternative distribution technologies, such as the Internet. Sony Corp. of America, in fact, has set an April launch for its Internet-based VOD movie service and expects to have major studios on board."[70] Among the possibilities are using a TV station's digital spectrum to transmit programming into homes.[71] In fact, "most pioneers in this burgeoning industry agree that digital broadcasting will play an important role in the total interactive package."[72]

Telephone companies, too, are poised to enter the interactive business. Blockbuster has teamed up with several studios to do a test run of VOD using telephone's DSL lines.[73] Some observers claim that "with higher-capacity lines, phone companies can provide interactive functions for a fraction of the cost of other ITV providers – and often much more quickly than old cable companies struggling to upgrade their plants."[74]

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69 "VOD Takes Content Hit: Buena Vista Pulls Titles," *Multichannel News*, Feb. 12, 2001 at 1.

70 *Id.*

71 "Lights, Camera, Internet? Studios Explore Options," *Los Angeles Times*, Nov. 30, 2000 ("Several studios are in discussions with Los Angeles-based iBlast, an upstart owned by broadcasters that proposes using TV stations' digital spectrum to transmit programming into homes. Officials at iBlast would not comment. But insiders said that within six months consumers could pay $50 for equipment to receive monthly movie packages through iBlast.")

72 For Wavexpress, "Datacasting Is a Digital Stepping Stone," *Business Week Online*, September 7, 2000, www.businessweek.com/bwdaily/dnflash/sep2000/nf2000097_879.htm. (Oct. 4, 2000).

73 "Studios, Blockbuster Entering into Test of Video-on-Demand, Interactive TV," *Los Angeles Business Journal*, Dec. 11, 2000 at 1.

74 "What ITV Needs to Grow Up: Fewer Standards," *Business Week Online*, September 8, 2000, www.businessweek.com/bwdaily/dnflash/sep200/nf2000098_541.htm

Finally, the Notice discusses in detail several Internet-related interactive services – such as WebTV and AOLTV[75] – that are not even offered by cable systems. Customers can buy these boxes at retail and separately subscribe to the respective services.

With respect to the general broadband deployment of Internet services, there is certainly no reason to presume that cable facilities are or will be dominant much less essential. And there is no reason to believe that cable facilities will be any more dominant or essential in the provision of Internet-based ITV services. As a recent *Business Week Online* article observed: "Cable is currently out in front, but experts still give DSL a narrow edge longer term."[76]

Cable currently serves approximately 4 million high-speed customers[77] in the United States and is projected to serve over 7 million by year-end 2001.[78] DSL, currently at nearly 2 million residential subscribers, will reach 3.7 million by the end of 2001.[79] Satellite is poised to grow from a one-way service (with over 100,000 subscribers) to two-way service in 2001.[80] Currently, one-way service is provided by DirectPC and Direct Duo (over 100,000 subs); two-way service will be provided by Starband, WildBlue, Hughes Spaceway ("DirecTV Broadband"), and Pegasus Express, among possible others.[81] Indeed, in 2001, Hughes will complete its acquisition of DSL provider Telocity, thus enabling DirecTV to immediately provide attractive Video-DSL high-speed packages.

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75 Notice at ¶16 (description of AOLTV); id. at ¶18 (description of WebTV).

76 "Picking Winners in the Broadband Race," *Business Week Online*, March 5, 2001.

77 Estimate of NCTA as of 2/28/01.

78 Paul Kagan Associates, The Cable TV Financial Datebook 2000 at 10.

79 Broadband Intelligence, High-Speed Internet Competition, December 2000 at 11. Filed in Comments of NCTA in Gen Docket No. 00-185, December 1, 2000, Attachment B.

80 *Id.* at 13.

81 *Id.* at 12-14.

In addition, fixed wireless (MMDS/ITFS/LMDS) high-speed data services will reach 300,000 to 500,000 subscribers by the end of 2001 and mobile wireless will be another player in the coming year.[82] Finally, terrestrial broadcast providers (*e.g.*, Broadcasters Digital Cooperative, iBlast) will continue developing high-speed data delivery plans in 2001.[83]

Without any evidence, the Notice rejects broadcast, satellite, wireless, and DSL as viable competitors on the basis that cable is further ahead in the game and better suited to it technologically.[84] But it offers no support for these propositions and, until there is, even this predicate for regulation of cable's ITV facilities and services is absent. Therefore, it is totally premature to assign cable a "dominant" position in the provision of ITV services, given the very preliminary state of this aspect of deployment.

C. The Legal Predicate is Wrong: The Notice's Reliance On the Conditions That Gave Rise to the 1992 Cable Act Renders its Entire Analysis Suspect

In addition to assuming how cable operators will behave regarding an industry that does not yet exist, the Notice proceeds from a faulty quasi-legal predicate. That predicate consists of the proposition that conditions which gave rise to the 1992 Cable Act still exist and warrant regulatory intervention of the sort that Congress believed was necessary in 1992.[85] That proposition is demonstrably false. The factual predicate of the 1992 Cable Act is inapposite, given market developments since then and likely trends going forward. The market has changed dramatically since Congress believed it necessary to impose on cable the type of access regulations cited in the Notice. In particular, the Notice cites cable's market position at the time

[82] *Id.* at 15-16.

[83] *Id.* at 14-15.

[84] Notice at ¶21.

of the 1992 Cable Act to provide an analogy to the ITV situation, where cable, the Notice assumes, would have the dominant platform to deliver ITV services. That analogy is flawed.

First, in contrast to the situation in 1992, over 19 million consumers subscribe to cable's competitors. Competition in the video market is well established and growing steadily. The most telling difference, of course, is the development of Direct Broadcast Satellite ("DBS") as a video – and now high-speed data – competitor to cable. In 1992, DBS services were not even launched. Today, consumers can choose from a variety of multichannel video providers, including DBS, telephone companies, and utilities. As shown in the charts that follow, over 19 million consumers (more than 22 percent of multichannel video subscribers) now obtain multichannel video programming from some company other than their local cable operator.

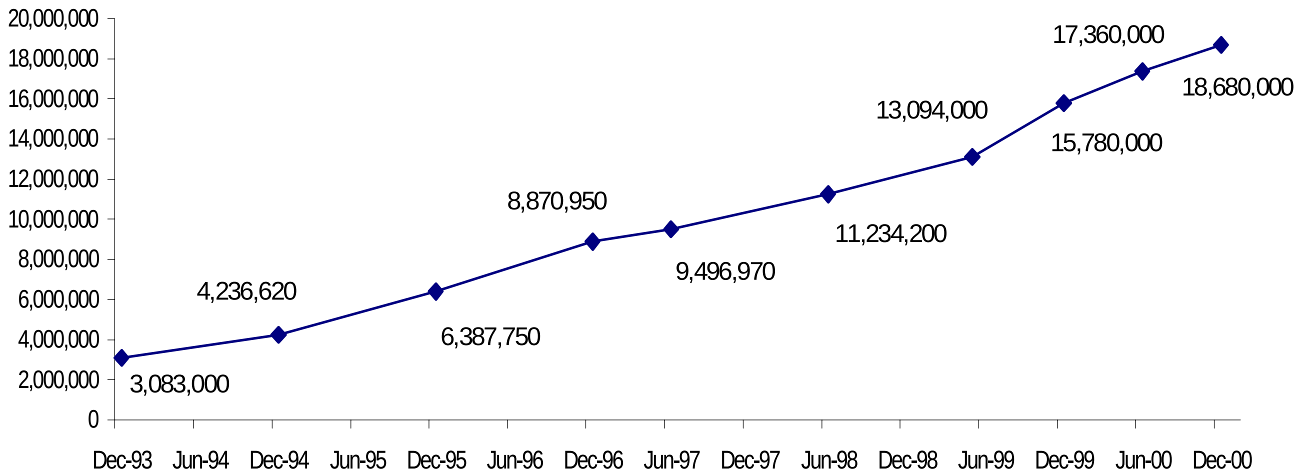
Market Share of Multichannel Video Program Distributors (MVPDs)
January 2001

[85] *Id.* at ¶¶2,3.

MVPD	Subscribers (in Millions)	Percent of MVPD Market
DBS	14.8	16.9
C-Band	1.29	1.47
MMDS	0.7	0.80
SMATV	1.5	1.71
Local Telephone Companies	0.43	0.45
Broadband Competitors	0.66	0.75
Total Non-Cable	19.38	22.13
Cable	68.21	77.87
Total Multichannel Subscribers	87.55	100.00%

NCTA estimates based on data from A. C. Nielsen, Paul Kagan Associates, Cable World, SkyREPORT, and individual companies.

Growth in Non-Cable MVPD Households
December 1993 – December 2000



Source – December 93-June 00: FCC Fourth and Seventh Annual Reports;
December 2000: NCTA estimate based on Kagan and SkyREPORT data.

Second, the reference to the 1992 Act ignores the many competitors of cable for high-speed broadband services – particularly telephone company-provided DSL and DBS-delivered broadband – which make any analogy to the market status of cable in 1992 totally inappropriate. Third, even reliance on the 1992 Act by analogy is inappropriate because it ignores a significant intervening event – passage of the Telecommunications Act of 1996 with its deregulatory mandate in general and Congress' direction to deregulate cable in particular.

Significantly, among the key findings animating the 1992 Cable Act was that "most cable subscribers have no opportunity to select between competing cable systems…. [A] cable system faces no local competition. The result is undue market power for the cable operator as compared to that of consumers and video programmers."[86]

Whatever the merits of those findings in 1992, they plainly do *not* reflect cable's status today[87] as a video provider or as a provider of high-speed data services. Congress recognized the former when it passed the Telecommunications Act of 1996 which, among other things, mandated that a number of deregulatory steps be taken vis-à-vis cable. The FCC has recognized the latter with its policy of "vigilant restraint" and monitoring broadband developments.

Most significantly, the 1996 Act expressed a reversal of the regulatory mind-set that had imbued the 1992 Act. In particular, Congress enacted the 1996 Act "to provide for a pro-competitive, deregulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans…."[88] The proposals in the Notice hardly reflect the "deregulatory national policy framework" Congress mandated in the 1996 Act. Instead, manifesting a ten-year time warp, the Notice clings to analogies to the 1992 Cable Act and the circumstances leading to that legislation that are inapt.

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[86] Cable Television Consumer Protection Act of 1992, P.L. 102-385, §2(a)(2).

[87] *See, e,g,,* Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Seventh Annual Report, CS Docket 00-132, rel. Jan. 8, 2001.

[88] Conference Report, Telecommunications Act of 1996, Report 104-458, 104th Cong., 2d Sess., at 1.

D. The Notice is Based on Erroneous Economic Assumptions Regarding the Costs and Benefits of Even Thinking About Regulation of ITV Services at this Time

Adopting the proposed regulations – or signaling that the government might adopt these regulations – will significantly affect the market incentive to invest in the creation of local ITV platforms and ITV services. There may be nothing inherently wrong with gathering information about the current status of interactive services or speculating about how such services might develop in the future – although, at this nascent stage of development, the information is scanty and the speculation is nothing but crystal ball gazing. But when the *speculation* is accompanied by thoughts of *regulation*, real harm is likely to occur.

The Notice's concern is that if cable facilities ultimately turn out to be so superior to other facilities as a means of providing interactive television services, cable operators will have the means and incentive to discriminate in an anticompetitive manner against unaffiliated ITV services. And it asks whether and how the Commission should act to prohibit discrimination in those circumstances. Attached are two analyses – one by Professor Einer Elhauge of Harvard Law School[89] and one by Professor Marius Schwartz of Georgetown University and Dr. John Gale of the Brattle Group[90] – which show that this is an especially inappropriate and wholly premature question to be asking at this time.

1. The Threat of Regulation at this Nascent Stage of Development Is Likely To Deter Investment, Innovation and Competition in the Provision of ITV Facilities and Services

First of all, although there is no reason today to believe that cable will be the dominant means of providing interactive services, the prospect that cable operators who carry affiliated

[89] E. Elhauge, "Analysis Regarding FCC Notice of Inquiry on ITV Services."

interactive services might be required to provide nondiscriminatory access to unaffiliated services could "perversely create the very monopoly evil that regulation aims to remedy by discouraging multiple entry into ITV platform markets."[91] For why would ITV service providers invest in competing means of distributing their services if they know that they can use cable facilities on a regulated basis?

The prospect of regulation is also likely to deter cable operators from investing in facilities for the transmission of interactive services:

> Competitors in ITV services can use the [cable operator's] ITV platform if ITV turns out to be commercially valuable. If it turns out that the ITV investments are commercial failures, then the platform creator, and its shareholders, are left with the bill. All share in the fruits of success, but only the investor foots the bill if the service is a flop. The result is either no investment, or far less investment than would be economically efficient.[92]

And, the threat of regulation will deter even those cable operators who may already have invested in interactive *facilities* from investing in interactive *services* to be delivered over those facilities. If the provision of affiliated services triggers an obligation to carry unaffiliated services on a nondiscriminatory basis, the incentive to invest in interactive services will be sharply diminished.

The desirability of letting market forces play out is buttressed by cable's experience in video program services. From the start, the cable program services market developed as a combination of affiliated and unaffiliated providers. No one company possessed all the

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90 M. Schwartz and J. Gale, "The Appropriateness of Nondiscriminatory Access Regulation for Interactive Television."

91 Elhauge at 15.

92 *Id*. at 9.

intellectual capital necessary to launch cable programming. ITV involves even more complicated, software-driven enterprises. Cable operators cannot, have not, and will not develop the industry without the help of unaffiliated providers.

The following chart shows that cable has long relied on a combination of vertically-integrated and non-vertically-integrated ("NV") program suppliers. In the early stages, cable relied more on affiliated providers. Over time, nonvertically-integrated networks have come to represent a larger percentage of cable networks, despite the (now-vacated) channel occupancy cap established under the 1992 Act.[93]

Extent of Vertical Integration in the National Cable Network Market
1989 - 2000[94]

Year	Vertically Integrated National Cable Networks	*Percent of Total*	Non-Vertically Integrated National Cable Networks	*Percent of Total*	Total National Cable Networks
1989	37	*52.9%*	33	*47.1%*	70
1990	35	*50.0%*	35	*50.0%*	70
1994	56	*53.3%*	49	*46.7%*	105
1995	66	*51.2%*	63	*48.8%*	129
1996	64	*44.1%*	81	*55.9%*	145
1999	104	*36.7%*	179	*63.3%*	283
2000	99	*35.2%*	182	*64.8%*	281

Moreover, there are good reasons to encourage some vertical integration in the early stages of the ITV industry. Professor Elhauge points out, "ITV platform owners are natural

93 It is worth noting that the very first satellite-distributed networks – WTBS, TNN Superstation, (Nonvertical (NV)) (launched in 1996); HBO (vertical); Christian Broadcasting Network (Family Channel) (NV); PTL Network (NV); Home Theater Network (status unknown); WGN (NV); Modern Satellite Network (status unknown); and Satellite Program Network (Tempo) (NV) – were substantially non-vertically integrated.

94 "The Competitive Consequences of Vertical Integration in the Cable Industry," Ben Klein, filed in Comments of NCTA in MM Docket No. 89-600, March 1, 1990; FCC Report in MM Docket No. 89-600, released July 31,

investors in ITV services given their expertise and market position. They may thus be the most effective providers of ITV services, in which case leaving the market to unaffiliated ITV service providers will saddle consumers with more costly and lower quality ITV services"[95] – if they receive any ITV services at all.

It would be a complete mistake for the government to regulate the mix of services or the relationships of affiliated or non-affiliated parties, given the cable industry's historic market reliance on both affiliated and non-affiliated providers. For all these reasons, as Professor Elhauge concludes, "it is not just premature but affirmatively *anti*competitive to impose a sharing obligation *ex ante* to the creation of the markets in question"[96] – or even to suggest that such an obligation might ultimately be imposed.

Concerns over the effects of government rules constraining the market have kept OFTEL, the British government's Office of Telecommunications regulatory agency, from imposing regulation on ITV services. In this context, it is significant that the United Kingdom is far ahead of the United States in ITV development.[97]

The proliferation of ITV in Great Britain is due in part to the government's active role in assuring that providers can charge "reasonable fees to recoup their product development costs."[98] As OFTEL's guidelines conclude, "Detailed and prescriptive rules risk being overtaken by events

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1990; 1994-2000 FCC Annual Assessments of the Status of Competition for the Delivery of Video Programming.

95 Elhauge at 13.

96 *Id*, at 2 (emphasis in original).

97 It is estimated that over 20% of the television viewers in Britain have ITV and that by 2004 that number will increase to 60%. Stone, "Interactive TV's Really Big Picture," *Business Week Online*, www.businessweek.com, Sept. 7, 2000.

98 OFTEL Guidelines, "The Regulation of Conditional Access for Digital Television Service," www.oftel.gov.uk/broadcast/conacc.htm.

and hindering market developments." While no two countries will have the same ITV development pathway – for example, Great Britain has had a 20-year experience with the precursor "interactive" service of teletext – it is significant that the world's leading ITV country has purposefully avoided, rather than imposed, a common carrier like regime on ITV services.

2. There Is No Reason to Expect That Regulating ITV Facilities and Services Will *Ever* Be Necessary or Appropriate To Promote Competition

Wholly apart from the counterproductive "*ex ante*" effects described above, it is impossible at this time to predict with any confidence that the conditions that might conceivably justify a nondiscriminatory sharing obligation will *ever* exist, even after interactive facilities and services have been deployed.

As both Professor Elhauge's paper and the paper by Professor Schwartz and Dr. Gale explain, regulation of this sort is enormously complex and costly to implement. It is no simple task to ensure that the price and non-price terms offered to affiliated and unaffiliated companies are "nondiscriminatory" or that the effort to do so will result in the mix of services sought by the initiative. As Schwartz and Gale point out, "[n]ondiscrimination' is a superficially appealing concept, but operationalizing it raises a host of difficulties when firms are heterogeneous in their access requirements and in the costs of serving them."[99]

Moreover, because such efforts at regulation can never perfectly replicate marketplace outcomes, the costs of implementation are compounded by the costs of inefficient allocation of resources. And, as Schwartz and Gale explain, the costs and marketplace distortions that accompany efforts to prevent "discrimination" are most severe and prohibitive when those efforts are targeted at a nascent business like interactive television:

> The severity of this problem will vary with the particular circumstances of an industry. If the technology is simple and mature, the problem will be less serious. Conversely, when the technology is complex and changing rapidly, the likelihood that regulation will be efficient diminishes. *The case at hand is one where technology is relatively complex and rapidly evolving, hence regulation is likely to be difficult and to spawn considerable distortions.*[100]

The "distortions" to which Schwartz and Gale refer would adversely affect not only the cost and availability of interactive television services but, indeed, the very nature of the services that are developed: "Imposing premature regulation of technology choices and business arrangements may therefore foreclose certain technical innovation and variety, raise the costs or degrade the quality of those options that do emerge, and restrict efficient forms of business relationships."[101]

For all these reasons, it is counterproductive and inappropriate to devise and impose a regulatory scheme intended to remedy a market failure absent actual market failures. And that is why antitrust courts that have imposed sharing obligations under the "essential facilities" doctrine have done so only under very limited conditions, where there is reason to believe that such obligations are necessary and likely to remedy a market failure. According to Professor Elhauge, it is impossible at this time to know that the conditions that have been held to justify treating a facility as an "essential facility" will ever be met in the case of cable's (barely extant) interactive plant. Indeed, as Professor Elhauge shows at length, "each of the elements [of the essential facilities test] seems *unlikely* to be established in the future,"[102] with respect to cable's facilities.

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[99] Schwartz and Gale at 4.

[100] *Id.* at 4-5 (emphasis added).

[101] *Id.* at 7.

[102] Elhauge at 21 (emphasis added).

In particular, there is no reason to expect that cable interactive facilities will ultimately be the only facilities suitable for interactive services. Nor is there any reason to believe, at this time, that even if cable facilities were somehow essential, cable operators would deny the use of such facilities to a competitor – a key element of the "essential facilities" test. The questions asked by the Commission in this proceeding all seem to be premised on the notion that *if* cable facilities were to become essential for the provision of interactive services, and *if* cable operators were to offer their own or affiliated interactive services, *then* it would be reasonable to expect cable operators to discriminate against or deny access to unaffiliated interactive service providers. But these premises are the fancy of bureaucratic brainstorming, fueled by the regulatory gamesmanship involved in the merger review that gave strange birth to the Notice.

And even if there were facts to support this particular brainstorming, the theory is wrong. It simply is not the case, as Professor Elhauge explains,

> that where two products are necessary to produce some desired result for consumers, a monopolist who controls one of those products will have economic incentives to favor itself in the other product market. This premise squares with lay intuitions, but standard economic analysis has proven it is false. Even a monopolist generally has incentives to deal with itself only when it is economically efficient to do so. There is an exception to this general rule in certain limited circumstances, but those circumstances do not apply to ITV markets, are difficult to ascertain, and are even more difficult to remedy without the cure being worse than the disease.[103]

Finally, sharing requirements are not generally ordered under the essential facilities doctrine where there are legitimate business reasons that justify a refusal to make facilities available on a nondiscriminatory basis. As Professor Elhauge points out, "one cannot at this early stage possibly determine that there will not be legitimate business reasons for refusing to share

[103] *Id.* at 2.

ITV platforms."[104] But "[w]hat we do know now suggests there are powerful reasons to think there *will* often be legitimate business reasons not to allow" nondiscriminatory sharing by all potential providers.[105]

Figuring out how to design and use interactive facilities in a manner that most efficiently and effectively ensures the attractiveness of interactive services to subscribers is likely to require a degree of control and coordination that will not be achieved under a nondiscrimination requirement. In some cases, the efficiencies and reduced transaction costs of collaborating with only a select group of providers, or of working with an affiliated company, may make it possible to provide services that would otherwise never be offered. In these circumstances, it would be counterproductive and anticompetitive to impose a nondiscrimination requirement:

> The Notice of Inquiry does not show any signs of having considered the inefficiencies created by the division of access itself. But if it is cheaper or better for consumers to get ITV services and platforms from one company, it would be unwise to force ITV platform owners to connect to independent ITV service providers just to preserve the latter's existence. That would protect competitors, but not competition. Efficient vertical integration is desirable for consumers, and sound market rules should not interfere with it.[106]

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The inescapable conclusion is that regulating cable operators' interactive facilities by imposing some sort of nondiscriminatory access obligation is likely to do more harm than good. Indeed, during these embryonic stages of development, even suggesting the possibility that the Commission might someday impose such a requirement is likely to have a stifling effect on ITV investment, innovation and deployment. Professor Elhauge sums up harshly but aptly, concluding that the Commission attempts

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[104] *Id.* at 25.

[105] *Id.* (emphasis in original).

[106] *Id.* at 26.

> to address a regulatory problem that has not and might never arise, at a time before the law recognizes any essential facility problem, and before one could know sufficient facts to design any proper regulation. The suggested regulation itself threatens to create the very market problem it seeks to regulate, or even worse, stifle or distort the creation of the ITV market altogether. All this to achieve a regulatory end that is itself dubious and rests on a premise clearly rejected by modern antitrust economics.[107]

IV. CONTEMPLATING REGULATION OF ITV SERVICES IS PARTICULARLY INAPPROPRIATE IN A TIME OF FINANCIAL UNCERTAINTY REGARDING THOSE AND RELATED OFFERINGS

The Notice acknowledges (¶ 20) that regulation may stifle investment and innovation. That is generally the case following any governmental intervention in areas of rapid technological change. The concern should be even more pronounced with respect to even considering the regulation of ITV services given the precarious financial status of a number of significant players in the ITV world.

The recent dot-com "meltdown" and technology stock slides should certainly foster such caution. The slow launch of ITV services has been an obvious factor in the steady decline of ITV stocks. WorldGate, for instance, opened in 2000 at $45 per share only to see its stock tumble to less than $6 per share late in February 2001. Source Media also saw a tremendous downturn in its stock from an initial offering of $18 per share to less that $1 at the end of 2000. Each company says it has enough operating capital to continue for another year, although Source is reported to be planning employee layoffs and will discontinue its "yellow pages" product in an effort to streamline its operations.[108]

Liberate Technologies, Inc. reports that its software rollout remains on track. Yet, its stock was recently downgraded by a Deutsche Banc Alex Brown analyst after delays of its AT&T

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[107] *Id.* at 2.

[108] "ITV Slump Makes Some Urge a Shakeout," *Multichannel News*; January 22, 2001 at 3.

Broadband trial and slow deployment of its high-end boxes due to software glitches.[109] Liberate's stock, which traded at a high of $148.50 per share in December 1999, dropped to its all-time low of $9.56 last month.[110] OpenTV, a rival of Liberate's, has also seen its stock tumble from a high of $246.75 in Spring 2000, to $7.75 in February 2001.[111] Wink Communications, whose interactive advertising platform may be the most-widely distributed ITV service in the United States, experienced a drop in share price from its initial offering of $55 to $8.06 in January 2001.[112]

Video-on-demand provider SeaChange International, Inc., has also experienced share declines which it attributes to a delay in significant video-on-demand orders. The delay caused the company to warn investors that it would miss fourth-quarter revenue predictions. Investors drove the price of SeaChange stock down by 24% in mid-February 2001.[113]

Even interactive program guide provider Gemstar-TV Guide International has not been spared from tumbling stock prices. An analyst for CIBC World Markets recently downgraded its shares, following concerns about the slower-than-anticipated distribution of the company's interactive program guide in television sets and set-top-boxes. On that day, shares in the company fell 18% to $44.69.[114]

Industry analysts have also lowered their projections for personal video recorder providers, such as TiVo and ReplayTV. Forrester Research amended its year-end 2000 PVR

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[109] "OpenTV Boasts Strong Q4 Deployments," *Kagan Broadband*, Feb. 13, 2001 at 1.

[110] "Liberate Says Software Roll-Out Remains On Track," *Reuters*, Feb. 22, 2001, http://biz.yahoo.com/nf/010222/n21526715_2.html

[111] *Id*.

[112] "ITV Slump Makes Some Urge a Shakeout," *Multichannel News*, Jan. 22, 2001 at 3.

[113] "Tech Takes Toll," *Multichannel News Online*, Feb. 12, 2001.

[114] "Gemstar Shares Fall 18% After Analyst Downgrade," *The Wall Street Journal*, Nov 15, 2000 at B6.

household penetration numbers to 350,000 from an earlier projection of 800,000. Forrester's projections for 2001 penetration have also been amended to 1 million from its previous prediction of 3.6 million. As a result, TiVo's stock was trading around $6 per share in January 2001, a 92% drop from its 52-week high.[115]

In sum, the value of companies involved in the development and deployment of interactive television has plummeted over the past twelve months. As the table below illustrates, the stock prices (as of March 15, 2001) for seven publicly-traded ITV companies are off between 81% and 95% from their 52-week highs.

ITV Company	Market Capitalization as of March 15, 2001	Stock Price at Closing on March 15, 2001	52 Week High	Percent Off 52 Week High
Liberate Technologies	$771,600,000	$7.44	$102.56	92.75%
OpenTV	$801,600,000	$13.00	$245.75	94.71%
Seachange Int'l	$289,000,000	$13.50	$76.00	82.24%
Source Media*	$6,100,000	$0.34	$17.25	98.03%
TiVo	$225,200,000	$5.18	$45.38	88.59%
Wink	$163,200,000	$5.25	$54.00	90.28%
Worldgate	$116,400,000	$5.00	$47.00	89.36%

* Delisted from NASDAQ on March 8, 2001.

The threat of regulation can only serve to exacerbate their precarious financial situation. That threat may result in cable operators refusing to invest in ITV service providers or in plant upgrades to support ITV services. Why would a platform provider like cable (or DBS for that matter) commit to pay under long-term contracts for services that may be subject to a government-ordered access and tariff scheme to benefit parties who would rely on government to

[115] "Interacting With ITV: Marketers are Tuning In," *Advertising Age*, Jan. 15, 2001 at 52.

do their negotiating for them? Why would capital markets continue to support companies trying to sell to customers with such prospects? More is the pity, because these vanguard ITV companies have spent millions in the trial-and-error stage of a new industry. This investment will be lost if these companies fail in the capital markets due to the uncertainty initiated by the Notice.

V. THE FCC'S AUTHORITY TO REGULATE ITV IS EXTREMELY LIMITED

A. Regulatory Intervention is Not Warranted

At this early stage of ITV development, there is no justification for regulatory intervention. ITV is at an even earlier developmental stage than high-speed Internet access – an area for which the Commission has adopted a policy of "vigilant restraint" as it permits the marketplace to work without a regulatory overlay. Indeed, most cable operators have not even determined how, if at all, they will use or offer ITV. As we have shown, ITV is not yet available in most places, and the very concept of "ITV" itself is not remotely subject to a uniform definition at this point in its development.

The issue of regulating cable's distribution platform has already been addressed in the Broadband Access proceeding. There commenters showed that the imposition of burdensome regulations in advance of any evidence that they are warranted only stifles the development of this promising service.[116] Regulatory intervention is justified only where there is an identifiable failure in the marketplace. Here there is not even an identifiable *market*, let alone an identifiable failure in the market.

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[116] *See* AT&T Comments in Gen. Docket No. 00-185 at 99-103 (noting that the interactive television market still must resolve several important questions about technology, service, and consumer preference).

The earliest reports suggest a variety of ITV offerings, with no need for government intervention.[117] For example, the CEO of Wink has specifically advised against the regulation of ITV, telling Congress that she has entered into partnerships with more than 90 companies without government assistance.[118]

As Chairman Powell has said in a related context, it is "easy [to say] that openness is always good . . . . But it isn't always good…. What are the elements of a successful producer? They include elements of propriety and exclusivity and first-mover advantage. All of these things are important."[119] He continued:

> I don't like the knee-jerk assumption that it is simply discriminatory for any carrier or provider to try to capture some of the value …. The real issue is… whether they do so in a way that has an anticompetitive effect on consumers, and I don't think that's always a given.[120]

Should market failure occur, assuming the market develops, there will be time enough to implement appropriate remedies. Three years ago, arguments were raised – even by FCC staff – that cable facilities could never be made available for third-party ISP providers unless engineered at the outset to do so and, by government fiat at that. Today, in 2001, there are several trials underway that belie that assumption. Looking farther back, the FCC's own experience should alleviate any concern that architectural finality will prevent remedies if markets fail. For example,

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[117] *Id.* at 103-05 (noting numerous providers of ITV technologies and services). *See also* Cablevision Comments in Gen. Docket No. 00-185 at 16-17 (stating that the Commission should "avoid conflating the issue of access to cable broadband networks for unaffiliated ISPs with any issues associated with the nascent market for interactive television services").

[118] Statement of Maggie Wilderotter, CEO, Wink, Inc., Hearings on Interactive Television Before the Telecom., Trade and Consumer Protection Subcom. Of the House Commerce Comm., 106th Cong., 2d. Sess. (Oct. 6, 2000).

[119] "Powell Sees Efficient, Deregulatory Approach, Is Wary of 'Digital Divide,' 'Open Access' Issues," *Telecommunications Reports*, February 12, 2001, at 3-4.

[120] *Id.* at 4.

incumbent local exchange carriers have reconfigured those networks to support choice in long distance as well as the interconnection of competitive local exchange carriers.

B. While It is Premature to Classify ITV Services and Facilities, it Seems Likely That Cable-Provided ITV Services Will Be "Cable Service"

Consistent with its "regulate first, ask questions later" approach, the Notice saves until the end the significant question whether it has any authority to regulate ITV services. While we believe it is far too early in the development of ITV services even to begin to consider the appropriate classification for these varied and as yet-to-be-developed services, nevertheless, in the interest of a complete record with which to terminate this inquiry, we offer the following analysis.

The Notice asks if ITV services when provided by a cable operator are "cable services" subject to Title VI of the Communications Act. It recognizes that with the addition in 1996 of the terms "or use," Congress intended the definition of "cable services" to expand "to include interactive services such as game channels and information services made available to subscribers by the cable operator, as well as enhanced services."[121] We think it clear that, by its 1996 amendment to the definition of cable service, Congress intended to include some – if not all – of the interactive services that are the subject of the Notice within the "cable service" category when they are provided by a cable operator. Indeed, many of the services described by the Notice would appear to have been within the definition of "cable service" *even before* that definition was expanded by the 1996 Act.

The Notice notes that the Commission sought similar comment on this and related subjects in its proceeding on high-speed internet access. As we said in our filings in that proceeding, cable modem service should be considered to be a cable service. For the very same reasons, and

[121] Notice at ¶45, *citing* S. Conf. Rep. No. 230, 104th Cong. 2nd. Sess. 169 (1996)

additional ones too, cable-provided ITV services, at this point in their development at least, should be considered cable services.

Even before the 1996 amendments, the definition of "cable service" included not only "video programming," but also "other programming service."[122] "Video programming" is defined as "programming provided by, or generally comparable to programming provided by, a television broadcast station,"[123] while "other programming service" is defined broadly as "information that a cable operator makes available to all subscribers generally."[124] As we have discussed, many cable-provided ITV services have attributes comparable to programming provided by a television broadcast station. But even if that were not the case, surely current and contemplated ITV services fall within the definition of "other programming service," as they combine content with a connection to the Internet or other source, for delivery over the cable plant and afford subscribers access to "information" that is "available to all subscribers generally."[125]

As the Notice recognizes, the 1996 Act expanded the definition of "cable service"[126] to include "interactive services."[127] As the legislative history explains, this change reflects the

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[122] 47 U.S.C. § 522(6).

[123] *Id.* §522(20).

[124] *Id.* § 522(14).

[125] *MediaOne Group, Inc. v. County of Henrico*, 97 F.Supp.2d 712, 715 (E.D.Va. 2000) ("*Henrico County*"). The Notice asks about the "implications of classifying ITV services as 'cable services' and how various regulatory provisions might apply if ITV services were considered 'cable services'," citing, among other things, local franchising authority regarding cable facilities and equipment, and privacy regulations. Notice at ¶45. Classifying cable-provided interactive television service as a cable service would easily harmonize with existing cable service regulation. For example, the privacy of cable subscribers who use cable's interactive services would be protected pursuant to the provisions of Section 631 of the Communications Act, 47 U.S.C. § 551. Franchising authority regulation over cable interactive services would be subject to the same limitations imposed by law with respect to the offering of other cable services. *See, e.g.*, 47 U.S.C. §§ 541(c) (no regulation of cable system as a common carrier or utility); 543 (limiting rate regulation by local franchise authorities); 544(a), (b), (f) (establishing scope of franchising authority regulation over cable services and facilities and the content of cable services).

[126] Pub. L. No. 104-104, § 301(a)(1) (adding "or use," so that the definition reads "subscriber interaction, if any, which is required for the selection or use of such video programming or other programming service").

evolution of cable services from the traditional one-way provision of video programming to include interactive services.[128] The effect of this change is to prevent a cable operator offering interactive television services from being subjected, *inter alia*, "to the traditional common carrier requirement of servicing all customers indifferently upon request"[129] — the basic common carrier nondiscrimination requirement.

Many interactive television services that rely on subscriber interaction (*e.g.*, video-on-demand) are certainly within the definition of "cable service." That definition encompasses "one-way transmission to subscribers"[130] plus "subscriber interaction…which is required for the *selection or use* of such…other programming service."[131] This reflects Congress's recognition that cable services would include some upstream or interactive transmissions from subscribers. Interpreting "cable services" to exclude all interactivity would render Section 522(6)(B) inoperative, in violation of basic principles of statutory interpretation.[132] As the legislative history makes clear, the term "one-way transmission" was meant only to exclude telephony-type services from the definition of a "cable service."[133] And under the expanded definition of "cable service,"

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127 H.R. Rep. 104-458 at 169 (1996) ("1996 Conference Report").

128 *Id.*

129 H.R. Rep. No. 98-934 at 60 (1984) ("1984 House Report").

130 47 U.S.C. § 522(6)(A).

131 *Id.* § 522(6)(B) (emphasis added).

132 *See Mountain States Tel. and Tel. v. Pueblo of Santa Ana*, 472 U.S. 237, 249 (1985) ("[s]tatutes should be interpreted so as not to render one part inoperative"); *Wenger v. Lumisys, Inc.*, 2 F. Supp. 2d 1231, 1242 (N.D. Cal. 1998) (noting that a statute should not be construed "in a way that leads to absurd or futile results at variance with policy or legislation as a whole").

133 *See* 1984 House Report at 42 (service for voice communications is not a cable service). The 1984 House Report makes clear that non-voice services that involve an interactive component, including those in which the subscriber makes a request for information -- such as the ability to download computer software or video games -- are cable services. *Id.*

cable-provided interactive television services should be considered cable services if they are provided by a cable operator over a cable system.[134]

For many of the interactive services described in the Notice, in fact, the *only* transmission *involving the cable plant* is a one-way downstream transmission. Or, in the case of video-on-demand, the only interaction is clearly for the purpose of "selection" of a one-way transmission of the video programming. Carriage of a programmer's enhanced television triggers may be *a one-way* cable service if the subscriber's selection of the trigger resulting in the transmission of the selection to related content resources is achieved via telephone lines or some other non-cable route. And even if cable lines are used for upstream transmission, the subscriber's "*selection*," in any event, brings the service within the original, pre-1996 Act amendment definition of a "cable service." Moreover, the subscriber's selection is clearly meant to facilitate the "use" of the service being provided, bringing the service within the amended cable service definition as well.

C. As a Cable Service, Cable Operator-Provided ITV Cannot Be Subject to the Proposed "Nondiscriminatory Access" Requirement

The Notice asks commenters to consider whether a "nondiscrimination" requirement should be imposed on cable-provided ITV services, while disclaiming an intent to consider or adopt a requirement for "mandatory access to cable capacity for ITV service providers."[135] But as surely as night follows day, a "nondiscrimination" requirement will lead to demands for a

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[134] 1996 Conference Report at 169. The Notice (at ¶49) asks whether the three "building blocks" of ITV services (the video pipeline, the two-way connection, and specialized customer premises equipment) are severable for purposes of legal classification and regulatory treatment. But to the extent cable operators provide ITV services, they will be doing so as an integrated offering so there will be no severable services. They all will be offered over the distribution facilities of a cable system. A "cable system" is "a facility, consisting of a set of closed transmission paths and associated signal generation, reception, and control equipment that is designed to provide cable service which includes video programming and which is provided to multiple subscribers within a community . . . ." 47 U.S.C. § 522(7). Cable operators will use the same cable facilities used to deliver video programming to subscribers to create a closed path to deliver cable interactive services.

[135] Notice at ¶21.

"nondiscriminatory *access*" requirement. In fact, the so-called "nondiscrimination requirement" is, in reality, an access requirement as well because it would require a cable operator to provide nondiscriminatory access to its cable capacity for "unaffiliated" ITV "service providers" once the operator begins providing any type of ITV services "directly or through an affiliate."[136]

Such a "nondiscrimination" requirement is the essence of common carrier regulation. Section 202(a) of the Communications Act states that "it shall be unlawful for any common carrier to make any unjust or unreasonable discrimination in charges, practices, classifications, regulations, facilities, or services……"[137] Imposition of such a requirement on cable operators' provision of ITV services is prohibited by the Communications Act.

Section 621(c) of the Communications Act, 47 U.S.C. § 531(c), states: "Any cable system shall not be subject to regulation as a common carrier or utility by reason of providing any cable service." As discussed above, the Act defines cable services to include cable-provided interactive television services. Since a "nondiscrimination" requirement subjects cable systems to common carrier and utility regulation, the Commission cannot impose such a requirement on cable-provided ITV services.

The legislative history of Section 621(c) makes clear that Congress intended to preclude the imposition on a cable operator of "the traditional common carrier requirement of servicing all customers indifferently upon request . . .."[138] The Senate version of the bill that ultimately became

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[136] *Id.*

[137] 47 U.S.C. §202. It is noteworthy that even this requirement only prohibits "unjust or unreasonable" discrimination and does not flatly prohibit a common carrier from treating like persons differently as the proposal in the Notice suggests might be the case with its proposed "nondiscrimination" requirement.

[138] 1984 House Report at 60. Section 651(b) of the Communications Act, 47 U.S.C. § 571(b), sheds additional light on the intent behind the prohibition on "common carrier" regulation in Section 621(c). Section 651(b) was added to Title VI in 1996 to establish the regulatory scheme for the provision of video programming by telephone companies. Section 651 states that, to the extent a telephone company provides video programming to subscribers, it "shall not be required, pursuant to Title II of this Act, to make capacity available on a

the 1996 Act specifically was amended to make clear that cable operators are not engaged in the provision of "telecommunications service" to the extent they provide cable services.[139]

Further, Congress prohibited not only imposing common carrier regulation on cable systems, but also subjecting cable systems to utility regulation. In so doing, Congress intended to prevent not only regulation that converted cable operators into common carriers, but also other regulatory actions that treated cable operators *like* common carriers or utilities. Treating a cable system as an "essential facility" (which we have shown it is not) for purposes of providing ITV services by imposing access or nondiscrimination regulations on it is the essence of common carrier-like utility regulation.

The proposed "nondiscrimination" requirement is also barred by Section 624(f) of the Communications Act.[140] Section 624(f) bars the FCC (as well as any other Federal agency, state or franchising authority) from "impos[ing] requirements regarding the provision or content of cable services except as expressly provided in [the Act]." As Commissioner Furchtgott-Roth said in dissenting from adoption of the Notice: "As the Act is void of an express statutory provision regarding ITV services over cable systems, it is arguable that the Commission is prohibited from commencing a rulemaking proceeding on the subject."[141]

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nondiscriminatory basis to any other person for the provision of cable service directly to subscribers." *Id.* Section 651(b) was intended to ensure that telephone companies offering video services were on a level playing field with cable operators. Its prohibition of common carrier-like "nondiscriminatory access" requirements reinforces and explains the ban on "common carrier regulation" in Section 621(c).

139 *See Universal Service Report to Congress*, 13 FCC Rcd 11501, 11523 ¶44 (1998) (explaining that the reference to cable service was deleted from the Senate definition of "telecommunications services" so courts would not interpret the term "too broadly and inappropriately classify cable systems . . . as telecommunications carriers."). As Senator Pressler, Chairman of the Senate Commerce Committee at the time, explained, the change was "intended to clarify that carriers of broadcast or cable services are not intended to be classed as common carriers under the Communications Act to the extent that they provide broadcast or cable services." 141 Cong. Rec. S7996 (June 8, 1995) (statement of Sen. Pressler). This change was carried forward to the enacted statute.

140 47 U.S.C. § 544(f).

141 Notice, Dissenting Statement of Commissioner Harold W. Furchtgott-Roth, at 10.

The United States District Court in the *Henrico County* case has held as much in the closely-related area of government-mandated access to cable facilities for unaffiliated ISPs. In that case, the court was dealing with a local franchising authority ordinance that required the local cable operator, if it provided cable modem service using an affiliated ISP, to allow any other requesting ISP to connect with the operator's cable facilities. Therefore, just as is the case with the Notice's proposed "non-discrimination" requirement, the Henrico County "access requirement" was triggered by the operator's *provision* of the service at issue with an affiliated service provider (there cable modem service; here ITV service). Moreover, in the *Henrico County* case as is the case here, once the access requirement was triggered, the operator was required to transmit the "content" of other parties. Accordingly, the court held that the "ordinance's imposition of requirements regarding *both* the 'provision' and the 'content' of cable services violates Section 544(f)(1)."[142]

In the case of ITV services, the potential violation of Section 544(f)(1) is just as – if not more – evident. Therefore, the Commission cannot adopt its proposed non-discrimination requirement without running afoul of Section 544(f)(1).

There may, someday, be some ITV services that the Commission might conceivably view as outside the scope of "cable service." Even if cable operators provide access to the Internet via modems inside set-top boxes – and virtually no such cable modem-equipped boxes are in use today – such a service would still be a cable service or, at most, an information service and not a telecommunications service.[143] In any event, as we discussed at length in our comments in the Commission's proceeding concerning high-speed access to the Internet, there would be no basis

[142] *Henrico County*, 97 F. Supp. 2d at 716 (emphasis in original).

under the FCC's precedents for regulating such cable Internet offerings even if they were to be classified as information services *or* telecommunications services.[144]

The critical point, for now, is that the services described in the Notice plainly resemble cable service and there is no authority for FCC regulation of such services.[145] It is far too early even to speculate as to whether some imagined services *might* not be cable services – especially since there is probably no authority, much less any public policy reason, to regulate even in that case.[146]

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[143] *See* Comments of the National Cable Television Association in Gen Docket No. 00-185, filed December 1, 2000 at 8-18.

[144] *Id.* at 22-38.

[145] Contrary to the suggestion in the Notice (¶51), Section 612(g) of the Communications Act provides no authority to regulate cable-provided ITV services. Section 612(g) provides that, at such time as cable systems with 36 or more activated channels are available to 70% of households within the United States and are subscribed to by 70% of those households, the Commission may promulgate any additional rules necessary to provide diversity of information sources.

The short answer is that the benchmarks have not been met, and that, in light of the steady growth of new competitors in the marketplace, it seems unlikely that they will be met in the foreseeable future. While it is true that cable systems with 36 or more channels are available to far more than 70% of households within the United States, based on analysis of A.C. Nielsen, *Cable On-Line Data Exchange (CODE)* data as of February 24, 2001, the penetration rate for those systems is only 65.8%.

In any event, the Commission's authority under Section 612(g) is narrowly circumscribed and applies solely to modifications of the leased access requirements set forth in Section 612 – in particular, the rates for leased access. *See* Comments of National Cable Television Association, CS Docket No. 00-132, filed September 8, 2000 at 32-33.

[146] Neither the Commission's "ancillary" authority under Title I of the Communications Act nor the establishment in Section 706 of a policy to promote the deployment of "advanced telecommunications capability" provide a statutory basis for the imposition of access requirements on cable-provided ITV services. The Commission's exercise of "ancillary" authority under Title I must support an explicit, existing statutory responsibility. *See, e.g.*, *United States v. Southwestern Cable Co.*, 392 U.S. 178, 178 (1968) (Commission's authority "is restricted to that reasonably ancillary to the effective performance of the Commission's various responsibilities…."); *Midwest Video*, 440 U.S. 689, 708-709 (1979) (holding that the Commission lacked ancillary authority to require cable operators to set aside four channels to be used by certain programmers). And any exercise of that authority cannot be "inconsistent" with other provisions of the Act. 47 U.S.C. §154(i). Imposing a so-called "nondiscrimination" requirement would violate both these conditions.

First, nothing in the Act permits the Commission to exercise its Title I authority to impose a nondiscriminatory access requirement on a cable operator for purposes of gaining access to the operator's ITV distribution facilities or services. To the contrary, as demonstrated above, several provisions of the Act *preclude* the Commission from taking such a step.

VI. MANDATORY NONDISCRIMINATORY ACCESS REQUIREMENTS VIOLATE THE FIRST AMENDMENT

The Notice quite correctly asks for comment on the "constitutional implications, if any, of adopting regulations that would require nondiscriminatory treatment of unaffiliated ITV providers."[147]

The constitutional implications are indeed significant because the Commission's proposed "nondiscrimination" requirements cut to the quick of a cable operators' First Amendment rights to select content to be distributed over their cable systems. The proposed requirement is nothing less than an unwarranted intrusion upon cable operators' rights to select and provide ITV content to their customers. Without question, there is a content-based character to many – if not most – of the proposed ITV applications. In addition to being required to carry ITV substantive content they might not otherwise carry, operators may wish to keep screens clear of triggers on some types of channels to avoid the clutter or over-commercialization of services. "Pop-up" interactive editorial or advertising features can annoy as well as attract viewers.[148] As with other content decisions, operators will want to consider how and when such content triggers or other ITV content should be added to the overall programming lineup.

Second, contrary to the suggestion in the Notice (¶47), the reference in Section 706 of the Telecommunications Act of 1996 to "advanced telecommunications capability," also does not offer a port in the regulatory storm for the Commission. Congress did not intend the identification of "advanced telecommunications capability" in Section 706 as a new regulatory category, or as the source of a new regulatory framework. To the contrary, Congress rejected calls for a separate regulatory scheme for advanced capabilities even as it directed the Commission to encourage the deployment of advanced telecommunications capability. In fact, imposing a nondiscriminatory access requirement would contradict the terms of Section 706 itself, which requires "regulatory forbearance" wherever possible in order to encourage the deployment of advanced telecommunications capability and promote investment in the necessary infrastructure. Pub. Law. No. 104-104, § 706(a).

[147] Notice at ¶53.

[148] The size of the pop-ups can be too small, too. "What ITV Users Really Want," *Cable World*, November 19, 2000, at 19 ("The only problem? Wink may be so subtle that many people don't know they have it.")

In selecting and providing such ITV content, cable operators make the same kind of editorial judgments that they make with respect to any other decisions as to program content to be carried on their systems and, in doing so, they are fully protected by the First Amendment.

It is well-settled that cable operators "engage in and transmit speech, and they are entitled to the protection of the speech and press provisions of the First Amendment."[149] The United States Supreme Court has stated clearly that the First Amendment protects the interests of a cable operator to exercise "editorial discretion over which stations or programs to include in its repertoire" and determine how the channels and the capacity of the system will be used to serve their customers.[150] A cable operator's decision whether or not to offer access to unaffiliated ITV service providers as part of its service offering is an exercise of First Amendment rights. By offering ITV services, the cable operator does not agree to provide access to all the world's ITV service providers.

In reviewing the must-carry requirements imposed on cable operators, the Supreme Court held that even content neutral regulations[151] that interfere with the editorial discretion of a cable operator must "further[] an important or substantial governmental interest . . . unrelated to the suppression of free expression."[152]

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149 *Turner Broadcasting System v. FCC,* 512 U.S. 622, 636, (1994)(citing *Leathers v. Medlock*, 499 U.S. 439, 444 (1991)). *See* also *Los Angeles v. Preferred Communications, Inc.,* 476 U.S. 488, 494 (1986); *Reno v. ACLU,* 521 U.S. 844 (1997) (finding "no basis for qualifying the level of First Amendment scrutiny that should be applied" to the Internet).

150 *Turner*, 512 U.S. at 636 (citations omitted).

151 In fact, a nondiscriminatory access requirement is not content-neutral, but content based, and therefore, a court will be called upon to analyze such a requirement under "strict scrutiny" and determine if it was "necessary to serve a compelling state interest and . . . narrowly drawn to achieve that end." *Arkansas Writers' Project, Inc. v. Ragland,* 481 U.S. 221, 231 (1987).

152 *Turner* at 622 (citations ommitted).

Where, as in the case of the proposed nondiscriminatory access requirements, a regulation on speech is defended as either a "means to redress past harms or prevent anticipated harms," the government must "demonstrate that the recited harms are real, not merely conjectural, and that the regulation will in fact alleviate these harms in a direct and material way."[153]

Here, as we have shown above, the alleged "harms" are entirely conjectural and speculative. For that reason alone, the Commission could not adopt the proposed "nondiscrimination" requirement without running afoul of the First Amendment.

As recently recognized by the court in the *Broward County* case,[154] forced access regulation requiring access to a cable operator's broadband plant for unaffiliated Internet service providers violates the First Amendment. The rationale of that decision applies to with at least equal force to cable-provided ITV services which have even more of a speech element than do cable modem services. The *Broward County* court's conclusions with respect to ISP access should give the Commission significant pause as it considers a nearly identical access requirement for ITV service providers.[155] In particular, the Court observed that "[t]he imposition of an equal access provision by operation of the Broward County ordinance both deprives the cable operator

[153] *Id.* at 664.

[154] *Comcast Cablevision of Broward County, Inc. v. Broward County, Florida,* No. 99-6934 – Civ. – Middlebrooks (S.D. Fla., filed Nov. 8, 2000).

[155] The *Broward County* court found that the reasons the Supreme Court applied intermediate rather than strict First Amendment scrutiny in the *Turner* case upholding the 1992 Cable Act's must-carry provisions did not apply to open access for third party ISPs. In *Turner*, the Court found that cable had a "bottleneck monopoly" power over television programming that threatened the "viability of broadcast television." However, because the FCC has concluded in its *First 706 Report* that "[c]able operators control no bottleneck monopoly over access to the Internet," (*Broward County* at 22) the court applied strict scrutiny. The same rationale would require the application of strict scrutiny to any nondiscriminatory access requirement triggered by an operator's provision of ITV services such as the one proposed in the Notice.

of editorial discretion over its programming and harms its ability to market and finance its service, thereby curtailing the flow of information to the public."[156]

Of particular relevance to this proceeding, the Court noted that "[s]ince Broward County's access regulation is only triggered by a cable operator's decision to offer an Internet information channel, it is very similar to the Florida law which led to the Supreme Court's decision in *Miami Herald Pub. Co. v. Tornillo,* 418 U.S. 241, 94 S. Ct. 2831, 41 L. Ed. 2d 730 (1974)." *Tornillo*, of course, involved a Florida law which provided for a right of reply to every attack upon a candidate for office which appeared within the newspaper. After quoting from the Supreme Court's *Tornillo* opinion, the *Broward County* court concluded:

> It is ironic that a technology, which is permitting citizens greater ease of access to channels of communication than has existed at any time throughout history, is being subjected to the same arguments rejected by the Supreme Court in *Tornillo*. Broward County's ordinance intrudes upon the ability of the cable operator to choose the content of the cable system and imposes a cost in time and materials in order to make available the space that may be demanded. . . . Compelled access like that ordered by the Broward County ordinance both penalizes expression and forces the cable operators to alter their content to conform to an agenda they do not set.[157]

For the exact same reasons, the Commission's nondiscriminatory access proposal in the proceeding could not withstand constitutional muster.[158]

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[156] *Id.* at 16.

[157] *Id.* at 18.

[158] *Time Warner Entertainment Co. v. FCC (No. 94-1035, D.C. Cir. Mar. 2, 2001)* highlights the need to consider the constitutional issues raised by this proceeding. The D.C. Circuit applied intermediate scrutiny to the FCC's horizontal and vertical ownership limits. Of particular import was the conclusion that the Commission had failed to justify its regulations because it did not "demonstrat[e] that the recited harms are real, not merely conjectural," and did not "show a record that validates the regulations, not just the abstract statutory authority." In that case there was at least a statute authorizing the FCC to act; here there is no explicit or ancillary statutory authority, and it is hard to see how a record can be compiled to support regulation of a service that cannot even be defined.

Congress and the FCC have been careful to specify when to provide content access to the cable platform. Leased[159] and public, educational, and governmental access,[160] analog must carry,[161] along with limited access for federal candidates[162] delimit those opportunities. Beyond those limits, courts have recognized operator speech rights and have denied a generalized right of access.[163] ITV access rights overstep what limited rights have been established and would be unconstitutional.

Finally, the *Broward County* court found the harm the forced access ordinance purported to address – the supposed inability of ISPs to obtain access to "an essential facility" operated by cable operators – "appears to be non-existent."[164] The court noted that the Cable Services Bureau has concluded that "traditional telephone lines 'will remain the principal means of accessing the Internet' in the near term," and that more than 90% of residential Internet users use dial-up ISPs. Similar findings as to the lack of "essential facilities" characteristics must be made with respect to the ITV marketplace and would render any federal forced access requirement unconstitutional.[165]

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[159] 47 U.S.C. § 532.

[160] *Id.*, § 531.

[161] *Id.*, § 534.

[162] *Id., §* 312(a)(7).

[163] In other contexts, including newspapers, *Miami Herald Publishing Co. v. Tornillo,* 418 U.S. 241 (1974), and broadcasting, *CBS, Inc. v. Democratic Nat'l Committee*, 412 U.S. 94 (1973), the U.S. Supreme Court has recognized there is no generalized right of access to media.

[164] *Broward County* at 25.

[165] Further, nondiscriminatory access obligations also would raise a significant "takings" question under the Fifth Amendment to the U.S. Constitution, because they involve a permanent physical occupation of each cable operator's property. *See Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 426 (1982).

VII. CONCLUSION

ITV is today a combination of exciting consumer possibilities fraught with great challenges. Even before this misbegotten proceeding was commenced, ITV companies had expended millions of dollars in attempting to bring this new industry to life. This proceeding, if it goes further, will red-light the environment for investment in ITV beyond what capital markets have already done.

What might have been a Notice focused on fact-finding became overtaken by a speculative blueprint for the architecture and micro-regulation of a yet-to-emerge industry. The proceeding rolls out the regulatory cart before the horses can even be harnessed.

The Commission should conclude that, because ITV – however defined – is in its infancy, there is no reason in law or policy to consider adopting a regulatory regime for ITV. Serious questions about whether there is or will be a definable ITV market and whether cable is or can be dominant in a part of that market also caution against premature assertions of regulatory authority. As it has done in other cases involving nascent services, the Commission should monitor ITV developments as they work themselves out in the commercial marketplace. Given the nascency of ITV services, there will be adequate time for regulatory intervention (assuming the FCC has jurisdiction) if market failure warrants.

Respectfully submitted,

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ATTACHMENT A

ANALYSIS REGARDING FCC
NOTICE OF INQUIRY ON ITV SERVICES

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I. INTRODUCTION AND SUMMARY

Regulating interactive television (ITV) markets at this early point in their development – especially by imposing a duty to share business assets – would be to harmful to competition and inimical to the public interest in low prices and technological progress. Such regulation would be utterly premature, not only because the future of this fast moving technology and market is hard to predict, but also because regulation would distort the technology and discourage investments in creating and entering the market. The predictable effect would be to retard business development and competition in ITV markets, raise prices to consumers, and impede technological progress in making ITV services fast, powerful, and easy to use.

In assessing the regulatory issue, it is crucial to understand the difference between an *ex ante* (before the fact) and *ex post* (after the fact) perspective. In the current context, an approach could be said to be *ex post* if it assumed that: there already exist separate markets for ITV services and platforms, some firm already has monopoly power in ITV platforms, the technology has already developed in a way that made it nonduplicable and necessary to survival of ITV service providers, and it has already been established that efficiency and performance are unharmed by forcing the sharing of ITV platforms. As shown below, whether those facts will arise cannot be known at this time, and even if they do arise imposing a duty to share turns out to be dubious as a matter of economics and antitrust law. But what is at best dubious *ex post* becomes clearly wrongheaded *ex ante*, for the imposition of such a duty in advance will likely discourage efforts to create ITV platforms that

[1] Professor Elhauge has been retained by the National Cable Television Association to analyze the FCC's recent Notice of Inquiry regarding ITV services.

– *if* created – the Notice postulates might be so societally valuable that others will regard them as essential and nonduplicable. Such a duty would also encourage ITV service providers to exercise rights of shared access rather than enter and compete in the ITV platform market, and would discourage ITV platform providers from entering and competing in any ITV service market that might develop. In short, the duty both discourages the creation of any ITV market, and discourages competition in any market that is created. It is thus not just premature but affirmatively *anti*competitive to impose a sharing obligation *ex ante* to the creation of the markets in question.

Moreover, even if it did turn out a duty to share would be desirable *ex post,* the question of *how* best to define it could not be determined until one knew how the technology had developed. Defining the duty before the technological facts are known will likely distort or freeze technological developments. Certainly any duty now would be entirely premature under the antitrust essential facilities doctrine, which the U.S. Supreme Court has said must inform agency regulation of common carrier requirements. Such prematurity is especially ill-advised for ITV markets, where the posited regulatory predicate in fact seems unlikely to occur absent regulatory interference, and indeed properly understood should be precluded by FCC regulation of cable companies' nationwide market shares.

Even if the so-called "regulatory predicate" did arise in the future, it would not in fact justify the suggested regulation. The premise that it would – nowhere examined in the Notice – rests on a oft-repeated but mistaken premise: that where two products are necessary to produce some desired result for consumers, a monopolist who controls one of those products will have economic incentives to favor itself in the other product market. This premise squares with lay intuitions, but standard economic analysis has proven it is false. Even a monopolist generally has incentives to deal with itself only when it is economically efficient to do so. There is an exception to this general rule in certain limited circumstances, but those circumstances do not apply to ITV markets, are difficult to ascertain accurately, and are even more difficult to remedy without the cure being worse than the disease.

In short, the suggested regulatory action is well-meaning but fundamentally wrongheaded. It would, if pursued, attempt to address a regulatory problem that has not and might never arise, at a time before the law recognizes any essential facility problem, and before one could know sufficient facts to design any proper regulation. The suggested regulation itself threatens to create the very monopoly it seeks to regulate, or even worse, stifle or distort the creation of the ITV market altogether.

All this to achieve a regulatory end that is itself dubious and rests on a premise clearly rejected by modern antitrust economics.

II. REGULATION WOULD BE PREMATURE

A. The Speculative Nature of Predictions About the Future of ITV Markets

Any ITV markets are nascent and in a considerable state of flux. Answers to most of the factual questions asked in the Notice are unknowable at this point. One can speculate about the answers, but any answers given would be just that: speculation. Different technologies coming from different directions might provide the sorts of functionality the Notice defines as ITV services or platforms, or even eradicate any distinction between the two. It is not yet known what the technological winner will be, whether the winner will be any of the current technologies, or whether it will be some hybrid combination of current or new technologies that is yet unknown.

It is not even clear the technology will be popular enough for there to be a meaningful ITV market. *See* NCTA comments. To the limited extent ITV services have been offered, their sales have been far lower than expected, and the percentage of cable customers with ITV access remains extremely small. *Id.* At the current stage of development, it is impossible to know whether ITV technology will be commercially viable, and this uncertainty will extend into the foreseeable future. *Id.*

Even if we assume there will be a market for ITV, one cannot tell at this time whether technology and economic efficiencies will result in ITV being a market separate from other services, let alone whether ITV services and platforms will be separate from each other. The FCC's Notice of Inquiry defines ITV services and platforms in terms of their functionalities. *See* Notice ¶¶ 6-20. But as the United States Supreme Court has emphasized, whether two functionalities involve separate products turns on whether it is efficient to offer them separately. "[T]he answer to the question whether one or two products are involved turns not on the functional relation between them, but rather on the character of the demand for the two items." *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 19-22 (1984). "For service and parts to be considered two distinct products, there must be sufficient consumer demand so that it is efficient for a firm to provide service separately from parts." *Eastman Kodak Co. v. Image Technical Services*, 504 U.S. 451, 462(1992). We do not yet know whether there will be sufficient consumer demand to efficiently sustain ITV, let alone whether it would sustain separate markets for ITV services and platforms.

Technological or economic developments often result in what was once thought to be two products becoming one.

> What has at times been considered "one product" may come to be considered "two products" because changes in technology, economic costs, or consumer preferences make unbundling the components feasible and commonplace. Or what was "two products" may come to be considered "one product" because cost savings from producing the items jointly are so great that selling the items separately becomes economically unfeasible and rare.

AREEDA, ELHAUGE & HOVENKAMP, ANTITRUST LAW ¶1741a (Little, Brown 1996). For example, at one time, automobiles were sold separately from bumpers, fender lights, and trunks, but later technological and economic developments made them part of a single automobile product. *Id.* In the current regulatory context, we do not even have a confirmed historical practice of providing ITV services and platforms separately, but rather only the speculation that the market might develop in a way that would allow for efficient separate provision. Regulations that require they be kept separate might thus create an artificial and inefficient bifurcation of what technology and economics would have united.

Even if we could peer into the future and say with confidence that separate markets for ITV services and platforms will turn out to be efficient, it is far too soon for anyone to assume the market for ITV platforms will be uncompetitive. Competition is already beginning to develop among alternative ITV platforms even in local markets. Currently, ITV services are generally offered through set-top boxes rather than through broadband or Internet platforms. There is nothing to prevent rivals from competing to sell set-top boxes in any region. Indeed, set-top boxes can and are being sold by firms other than cable companies, as with WebTV or AOLTV. Moreover, as the Notice acknowledges, television stations can themselves provide ITV services as part of their video signal. *See* Notice ¶¶10, 17.

Perhaps developments in future technology will turn out to mean that ITV services require a broadband or Internet platform, but that is adding another layer of speculation on an already uncertain prediction. Moreover, even if we do add this layer, there is already competition in broadband and internet access markets between cable and other technologies like telephone (DSL), satellite (DBS), or microwave technologies. As the FCC acknowledges, DBS already provides an alternative ITV platform for existing ITV services. *See* Notice ¶18. One might add yet another layer of speculation by assuming that in the future only cable companies will be able to compete in a ITV platform market. *See id.* ¶¶19-21. But such a assumption would be highly premature since we do not yet know what the ITV technologies will look like, let alone the extent to which some technologies might serve as significant substitutes for others. And even if we did limit consideration to cable companies, the fact is that in many markets competition exists between rival cable companies that have wired the same localities, and in other cable markets it may be possible for a second cable company to do the wiring and create cable competition.

Local competition in the anticipated ITV platform market is thus already a reality and cannot be assumed away in the future. Indeed, the future portends even more competition: DBS technology may now have a smaller share of subscribers than cable companies but DBS is growing three times faster. *See Time-Warner v. FCC*, 2001 W.L. 201978, at *7 (D.C.Cir. March 2, 2001). Further, as the D.C. Circuit recently ruled, what matters in limiting any cable market power is not the number of DBS subscribers but rather the number of households that *could* switch to DBS, which might include all households. *Id.* at *8. The future may also bring local platform competition from new technologies as yet unknown. As the FCC correctly concluded in a recent decision, not only is cable broadband not a monopoly or natural monopoly, but to assume even a duopoly is premature – there are likely to be three (or more) rivals in the market for local broadband, of which a local cable provider would be just one. FCC Report 99-5, at ¶¶ 48, 52.

Indeed, whether competition continues to grow in the future will be strongly influenced by whether regulation creates burdens that discourage the creation of ITV platforms by giving rivals legal entitlements to share access to ITV platforms that discourage firms from entering and competing in local ITV platform markets. *See infra* II.B. Moreover, in terms of the supposed threat to the ITV services market, what matters is not local market power *vis-a-vis* consumers but rather national (if not global) market power *vis-a-vis* ITV service providers. *See infra* II.C(2), III.C. In the national market, it is plain multiple ITV platforms already exist even if one artificially restricts the inquiry to cable ITV platforms, and there is no reason to expect that will change.

Finally, even if we could with confidence predict that ITV services and platforms will be separate markets, and that a relevant monopoly will develop over the ITV platform market, it would take a crystal ball to tell what the precise content of ITV services and platforms will turn out to be. Without knowing these technological facts, one cannot know whether in fact ITV platforms will be nonduplicable or whether access to them will be essential for rival providers of ITV services. One cannot determine the appropriate technological limits for any duty to share. Indeed, the technological content is so unclear one cannot at present really know what nondiscrimination would mean or how best to define it to further any regulatory purposes.

In short, the issue of whether or how to regulate ITV access is not ripe for regulatory action. The future is unclear, as is suggested by the tentative nature of the predictions in the Notice of Inquiry, and its request for commentators' forecasts on how this market will evolve. At this time, the government could only speculate whether the future will conform to factual predicate that the Notice itself suggests must exist to justify regulation. The problem only worsens when one recognizes that any adoption of regulation would itself deter and distort technology investment and economic entry into the market for ITV platforms or services, thus altering the technological and economic future. I turn to that problem next.

B. The Ex Ante/Ex Post Problem

One cannot separate predictions about the technological future from any decision to regulate now. Given the enormous cost and risk associated with technological development in this field, one must consider the effect of regulation on what the future will bring. In short, proper economic analysis includes consideration not only of what effect a regulation would have *ex post* if the predicted market situation arises, but also of the effect a regulation has *ex ante* on what the future market situation looks like.

As the FCC appreciates, the interactive television market could provide "enormous value" to American consumers. Notice ¶1. Whether private industry would be willing to invest the huge sums necessary for this market to become a reality if mandated access regulation is adopted is a crucial question, as the FCC acknowledges. *See* Notice ¶20. Standard antitrust economics recognizes that imposing such a duty to share can interfere with the investments necessary to create facilities so valuable that they become deemed essential. As former antitrust scholar, and now Supreme Court Justice, Stephen Breyer put it:

> a sharing requirement may diminish the original owner's incentive to keep up or to improve the property by depriving the owner of the fruits of value-creating investment, research, or labor. . . . Nor can one guarantee that firms

> will undertake the investment necessary to produce complex technological innovations knowing that any competitive advantage deriving from those innovations will be dissipated by the sharing requirement.

AT&T v. Iowa Utilities Board, 119 S.Ct. 721, 753-54 (1999) (Breyer, J., concurring and dissenting). *See also* IIIA AREEDA & HOVENKAMP, ANTITRUST LAW 216-17 (1996) (should be no duty to deal when it would interfere with such incentives to invest).

Mandated access regulation would significantly reduce private industry's willingness to make the risky and enormous investments that are necessary to make the ITV market real, competitive, and technologically and economically optimal.

<u>(1) Reducing Incentives to Create ITV Platforms</u>. -- In order for a company to invest substantial sums in developing technology with uncertain commercial viability, the expected return must be sufficient to cover that company's opportunity cost of capital. If competitors are able to reap the rewards, through mandated-access rules, of a commercially successful ITV platform developed at great expense by another company, then this reduces the expected payoffs from making the investment in the first place. As Michael Armstrong succinctly explained, "No company will invest billions of dollars . . . if competitors have not invested a penny of capital nor taken an ounce of risk can come along and get a free ride in the investments and risks of others." Address Before the Washington Metropolitan Cable Club (Nov. 2, 1998).

Mandated-access regulation reduces the expected payoff from investing in creating ITV platforms. This is true both for investments that must be made to upgrade existing facilities to make them more suitable for delivery of ITV services, and for investments necessary to create entirely new, technologically innovative facilities with the goal of delivering ITV services. There are many reasons why the effect of mandated access regulation on investments is of particular concern in the context of ITV platforms.

First, as noted above, the future demand for ITV is uncertain, and has so far turned out to be lower than many predicted. This uncertainty means that returns on ITV platform investments must be correspondingly higher if it turns out that ITV services are commercially successful. A simple example illustrates the point. Suppose a firm is considering investing $100 to create an ITV platform, but given uncertainty there is a 50% chance such a ITV platform will have a payoff of $80, and a 50% chance it will have a payoff of $150. The expected payoff would then be

$80(.50) + $150(.50) = $40 + $75 = $115. This offers a 15% expected rate of return on the $100 investment, which might be enough to induce the investment despite the considerable risk involved. But no investment will be induced if the firm cannot be assured of getting the $150 payoff if it turns out that the ITV platform is commercially success. From an ex post perspective, the $150 payoff might seem to reflect monopoly profits because it looks like a return of 50% on a $100 investment, but this ignores the investor's expected payoff at the time of the investment decision, which is the economically relevant baseline. Mandated-access rules would very likely enable competitors who did not make the $100 investment to demand access to a successful ITV platform at a price far less than that necessary to induce the investment when success was uncertain. For example, suppose the investor anticipated that the FCC would through mandated-access regulation limit an ITV platform investor's return to 15% after it was clear ITV services would be successful. Then the investor would know that, if ITV does turn out to be a commercial success, it will not be able to charge more than $115 for access to an ITV platform. The investor's ex ante expected payoff from creating a platform would thus be $80(.50) + $115(.50) = $40 + $57.5 = $97.50, which means an expected return of *negative* 2.5%.[2] The investment will never be made. More generally, the greater the uncertainty surrounding the investment, the more mandated-access price regulation will depress ex ante incentives to invest.[3]

This distortion arises from the fact that mandated-access regulation of a ITV platform creates, in effect, a valuable option that the platform creator must give its competitors free of charge.[4] Competitors in ITV services can use the ITV platform if ITV turns out to be commercially valuable. If it turns out that the ITV platforms are commercial failures, then the platform creator, and its shareholders, are left with the bill. All share in the fruits of success, but only the investor foots the bill if the service is a flop. The result is either no investment, or far less investment than would be economically efficient.

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[2] The Notice of Inquiry is silent on the question of what price ITV platform owners would be forced to share their platform with ITV service providers. Although mandated access regulation implies price regulation, the Notice is almost entirely silent on this crucial question. There are serious, indeed insurmountable, problems with price regulation of ITV platforms, see infra XXX.

[3] Gorde, Sidak and Teece, *Innovation, Investment, and Unbundling,* 17 YALE J. REG. 1, 14-17 (2000).

[4] Jerry Hausman & Gregory Sidak, *A Consumer-Welfare Approach to the Mandatory Unbundling of Telecommunications Networks*, 109 YALE. L.J. 417, 463 (1999)

As is well know in option pricing theory, the greater the uncertainty surrounding an outcome, the greater the value of holding an option on that outcome. In the context of a market in the early stages of development such as the one for ITV, the uncertainty -- and hence the value of the free option provided by mandated access regulation -- is likely to be significant. Thus, the deterrence to investment in ITV platforms will be particularly large. As discussed in section (2) below, this free option will also have a detrimental impact on the investment decisions of firms entitled to share in the ITV platforms built by others.

Second, the reduced incentive to invest in socially valuable projects created by mandated access regulation is likely to be particular problematic in the ITV platform context. The Notice contemplates that the cable companies will bear the primary burden of mandated access regulation. *See* Notice ¶¶ 3, 21. This will make cable companies less likely to invest in ITV platform technology. But cable companies, as the Notice itself repeatedly emphasizes, are among those best positioned to make the investments necessary to make ITV a reality.

If the FCC's supposition that a cable ITV platform is the most promising means of delivering ITV services is true, this makes it more important, not less, that cable companies' have the necessary incentives to make these investments. These investments will clearly be substantial. As the Notice itself points out, most cable systems' capacity is now utilized in analog mode and is not suitable for digital transmissions. Notice ¶19. Cable operators have only just started to introduce limited ITV products in a few areas.

Discouraging cable companies from investing in ITV platforms may thus prevent ITV platforms from ever being created, reduce the number of communities in which cable companies would create such platforms, or cause ITV platforms to develop in ways that are technologically inferior or more expensive because full development of the cable ITV platforms was discouraged. Mandated access regulations may thus deter or distort the creation of the ITV market that the Notice predicts will be so valuable and essential.

It may turn out that cable companies prove not to be the best ITV platform, and that the technological battle is instead won by DSL, satellite, microwave or some other new technology as yet unknown. Or it may turn out that the best ITV platform varies depending on the region: that some are better suited to cable and others to satellite, for example. If that is true, any focus on cable companies will be misguided.

Other sections of the Notice of Inquiry suggest that any mandated-access regulations might be extended to other technologies like DBS or DSL. *See* Notice ¶4. But if that extension is not made, or in the interval before it is made, the above objections remain. And if those alternative technologies are also subjected to the same mandated access regulations, they will likewise be deterred from making the investments necessary to create ITV platform markets in as many areas as they otherwise could have efficiently provided.

Third, mandated access is likely to discourage investment by unaffiliated ITV service providers in creating ITV platforms. Without mandated access regulation, one natural investor in creating ITV platforms would be ITV service providers. Such investment could, but need not, involve simultaneous entry into the ITV services and platform market. Instead, firms who provide ITV services in some localities might create ITV platforms in others. For example, firms that provide a combination of ITV services and platforms in some areas might enter others, such as the cable company that wires adjoining areas to create overlap with other cable companies, or DSL or DBS providers who do the same.

The decision to enter into a new market is affected by two competing considerations: (a) the advantage from being the first to enter a market, and (b) the advantage from waiting for new information about that market. An ITV service provider, considering whether to develop an ITV platform, must weigh these two factors.

If there are large sunk costs in developing an ITV platform, then the advantage from waiting is clear. The passage of time will decrease uncertainty over what the ITV market will ultimately look like and what types of ITV services will be successful. This new information will help an ITV service provider avoid incurring unrecoverable costs in developing an unsuccessful ITV platform. This uncertainty is enormous given the fast and unpredictable pace of technological change.

Counterbalancing this incentive to wait are normally the advantages of being first to enter the market. But the advantage from being first to market would decrease (or disappear completely) under mandated-access regulation. An ITV service provider can always exercise its free option to utilize the ITV platform created by a competitor if it decides to wait.

Such an ability to free-ride off others' investments makes it more likely that every firm will wait for someone else, and that no ITV platform is ever created. ITV service providers would have this incentive to wait for others to develop ITV platforms *even* if investments by ITV providers would increase consumer welfare. The divergence between private and social costs and benefits flows inevitably from the cross-subsidization scheme embedded in mandated access regulations.

In short, adopting mandated access regulations – or signaling that the government might adopt such regulations – significantly decreases the market incentive to invest in the creation of ITV platforms. Indeed, even the pendency of this Notice of Inquiry undermines such incentives. And certainly consumers will be much better off in a world where ITV is an option than in a world where regulation that hoped to improve that option instead had the unintended consequence of eliminating the option altogether. Just as with intellectual property generally, many innovative products and services – and thus the markets for them -- may exist only if those who invest and innovate to create them can be assured the government will not take away the returns necessary to justify the investment. As other commentators have pointed out, this means mandated access requirements are usually inappropriate in the intellectual property context.[5]

(2) *Reducing Incentives to Enter Existing ITV Platform Markets and Create Competition.* – The Notice's fundamental public policy concern is that cable companies may in the future have monopoly power over an ITV platform market that turns out to be a necessary input for ITV services. Paradoxically, the contemplated regulations would make this outcome more likely by discouraging other firms from entering the ITV platform market. The suggested regulations thus threaten to create the very problem they seek to cure.

Ordinarily, when one firm has created a facility that turns out to be commercially successful and invaluable to other firms, that creates a market signal for other firms to enter that same market. Such investment is particularly likely to occur if firms can predict that they will not be able to stay in some associated market unless they make the requisite investment to create their own facility. The creation of an essential facility is thus itself a powerful inducement to entry that

[5] Hausman & Sidak, *supra* note 10, 109 YALE L.J. at 471 ("Under the essential facilities doctrine, the more an invention is unique, valuable, and difficult to duplicate, the greater the obligation to share it. In short, essential facilities principles are inherently inconsistent with intellectual property protection.")

would create genuine competition at all levels. ITV service providers denied access to ITV platforms created by others will have powerful incentives to build their own platforms, thus creating competition among ITV platforms.

A duty to share a facility perversely decreases the incentive of rivals to create their own rival facility. Instead, rivals have incentives to invoke their right to share in access to an existing facility. The result is that a duty to share discourages entry, meaning that a market that otherwise might have had genuine competition, will instead consist of a shared monopoly. Here, rather than entering an ITV platform market and making it competitive, mandated access regulation is likely to induce ITV service providers to just invoke legal rights to share in the existing ITV platform. Rather than encourage a competitive ITV market, the suggested regulatory measures would encourage a shared ITV platform monopoly.

The resulting shared monopoly in turn perpetuates the need for continued regulation, thus creating a circle of uncompetitive inefficiency out of which the market cannot escape. Such a regime of regulation, however much it tries to mimic what it thinks the results of competition would have been, inevitably cannot produce results as desirable as competitive markets could have. As Justice Breyer put it: "Rules that force firms to share every resource or element of a business would create, not competition, but pervasive regulation, for the regulators, not the marketplace, would set the relevant terms." *AT&T v. Iowa Utilities Board,* 119 S.Ct. 721, 754 (Breyer, J., concurring and dissenting). Thus, if the FCC takes regulatory action now, it is likely to create the need for perpetual regulation in the future.

All these problems are significant enough when the so-called essential facility has already been built.[6] At least in such cases, there is the caveat that the upstream or downstream rival might not have time to create their own facility before they would be driven out of the market. But that caveat is irrelevant where what is at stake are *anticipated* markets, like the market for ITV platforms and services. Since ITV markets are unlikely to fully develop for years to come, there is ample time for firms that wish to provide ITV services to enter into the market for ITV platforms. Taking precipitous regulatory action at this time will thus have an even worse effect on entry into the ITV platform market than is typical in the case of essential facilities. Regulatory action is not only premature in the sense that it might prove unnecessary; the premature nature of the regulatory action actually worsens the

[6] AREEDA & HOVENKAMP, *supra*, at 175.

regulation's predicted economic effects. Indeed, regulatory action at this inopportune time threatens to create the very anticompetitive evil it seeks to remedy.

(3) Reducing Incentives for ITV Platform Owners to Invest in ITV Services. -- The regulatory strategy suggested by the Notice of Inquiry would also adversely affect the incentive of ITV platform owners to enter into any market for ITV services. The Notice suggests that any mandated access regulation would be imposed only on ITV platform providers that themselves entered the ITV service market. ITV platform owners that refrained from entering the ITV service market would thus be free from burdensome regulations that might reduce their return on their ITV platforms. This regulatory difference creates a significant disincentive to enter the ITV services market.

Discouraging ITV platform owners from entering the ITV services market is unfortunate on many levels. First, ITV platform owners are natural investors in ITV services given their expertise and market position. They may thus be the most effective providers of ITV services, in which case leaving the market to unaffiliated ITV service providers will saddle consumers with more costly and lower quality ITV services. Second, in some areas, ITV platform owners might be the only firms willing to enter the ITV services market. In such areas, the regulatory disincentive to enter means that no ITV services will be offered to consumers at all. Third, in other areas, entry by ITV platform owners would increase the number of competitors in any market for ITV service.

All this is particularly unfortunate since, as explained below, standard antitrust economics shows that generally a firm with an alleged essential facility has incentives to enter an upstream or downstream market only when it is efficient to do so. *See infra* III.B. Thus, even if the Notice feared scenario arose, ITV platform owners would (without mandated-access regulation) generally only enter ITV service markets when they could provide that service better or more cheaply than other firms.

In short, mandated access regulations may not only produce an uncompetitive ITV platform market, but also hobble full competition in the ITV services market.

(4) Distorting Technological Development. – All these problems are worsened by the fact that we are at a very early stage of technological development. At this time, we cannot be sure there will turn out to be a separate market for interactive television, let alone separate markets for ITV platforms and service. It

may turn out that combined provision of ITV platforms and services is the most technologically or economically beneficial method, or even that the combination of ITV with other services is the most beneficial.

Mandated access regulation, however, discourages ITV service providers from entering ITV platform markets, and discourages ITV platform owners from entering ITV service markets. It thus impedes efficient vertical integration and freezes into place a separation of the markets for ITV platforms and services that distorts natural technological developments. Adopting premature regulation thus would create a separation between platforms and services that might be economically inefficient and technologically artificial.

Moreover, even if it does turn out that platforms and services are viable separate markets, just what the dividing line will be cannot yet be determined. Their precise nature will turn on future technological developments. Adopting mandated-access regulation before those developments are known is thus likely to instead lock-in product definitions that may poorly fit future technology, or worse prevent the best technology from ever arising. For example, ITV platform owners that do not want to enter the ITV service market will be discouraged from discovering or implementing improvements to their ITV platforms that might be judged by regulators to exceed the scope of the regulation defining ITV platforms.

(5) *Conclusion*. – Any decision to impose mandated-access regulations at this time would have to ignore crucial ex ante consequences. This renders the approach unworkable because the ITV industry is an industry whose continued development depends on the willingness of companies to make large investments in new technology with uncertain commercial viability. Antitrust law has always recognized that competition is served, not undermined, by allowing creators of new, innovative products to realize a return on their innovation.[7]

Mandated-access regulations are instead likely to discourage the massive investments necessary to create ITV platforms across this nation. Where they do not stifle the market altogether, such regulations can perversely create the very monopoly evil that the regulation aims to remedy by discouraging multiple entry into ITV platform markets. They are also likely to deter vertical integration, and freeze

[7] See, e.g., U.S. DEP'T OF JUSTICE & FTC, ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY §10 ("The intellectual property laws and the antitrust laws share the common purpose of promoting innovation and enhancing consumer welfare.")

the format of, ITV services or ITV platforms in a way that distorts technological progress or economic efficiency.

Indeed, the very fact that the FCC has indicated a possible interest in regulating this developing industry could potentially have a significant effect on investment decisions by both cable and non-cable firms interested in providing ITV platforms or services. The decision to invest and thereby incur unrecoverable costs has been found in the telecommunication industry (and other industries as well) to depend significantly on receiving assurances from regulators that they will not change the rules of the game to investors' disadvantage once an investment has been made.[8] The best result would thus be to not only dismiss the Notice of Inquiry, but to signal clearly that the FCC does not believe this is an appropriate market for regulation.

C. Regulation Would Be Premature Even If One Ignored Ex Ante Effects

Even if one ignored the fact that adopting regulations would itself alter the future development of ITV markets and technology, the topic would still not be ripe for regulatory action. For it is impossible now to predict with any confidence that the so-called regulatory predicate will exist in the future.

The Notice at points suggests a predisposition towards a factual prediction that cable companies will have future market power in ITV platforms. See, e.g., Notice ¶¶ 19, 21-22. But, for all the reasons noted above, there is no way to know whether technology or market forces will develop in that way. *See supra* II.A. Moreover, although the Notice seems to presuppose that such market power would form a sufficient predicate for essential facilities regulation, *see id.* ¶38, in fact establishing even monopoly power would provide only one of the factual predicates necessary to justify such regulation. It would be precipitous to determine now whether the other factors would be met too. To the extent we can predict the future, what we do know now makes it unlikely those factors will ever be met. Indeed, as shown below, the FCC's own regulations on nationwide market shares should prevent the factors from ever being satisfied. Certainly there is no warrant for regulators to pre-judge the issue now before the facts are known.

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[8] See Brian Levy & Pablo Spiller, *The Institutional Foundations of Regulatory Commitment: A Comparative Analysis of Five Country Studies of Telecommunications Regulation*, 10 J.L. Econ. & Org. 201 (1994).

(1) The Relevance and Requirements of Antitrust Essential Facility Doctrine. – The so-called regulatory predicate outlined in the Notice appears to implicitly invoke antitrust's essential facility doctrine, though without spelling out all its limitations. Looking to this antitrust doctrine makes sense, for while the U.S. Supreme Court has expressly declined to decide whether to accept it for antitrust,[9] development by lower courts has established the strict conditions that must be proven if the doctrine is to have any hope of fostering rather than retarding competition. Even with those limits, the doctrine is controversial because its anticompetitive effects may outweigh its procompetitive ones, for reasons described below. But without those limits, it is clear that imposing a duty to share under the doctrine would be anticompetitive.

Moreover, the U.S. Supreme Court has held that common carrier provisions in telecommunications statutes must be informed by antitrust's essential facilities doctrine. Regulators imposing a duty to share may not need precisely the same proof as the essential facilities doctrine, but do need something related to it in terms of proof that the requesting firm could not get the facility elsewhere and suffered more than just increased costs or decreased quality from denial. *AT&T,* 119 S.Ct. at 734-36; *id.* at 753-54 (Breyer, J., concurring and dissenting). As Justice Breyer stressed, common carrier provisions in the telecommunications statutes, like essential facilities doctrine, "require[s] balance. Regulatory rules that go too far, expanding the definition of what must be shared beyond that which is essential to that which merely proves advantageous to a single competitor, risk costs that, in terms of the Act's objectives, may make the game not worth the candle." *Id.* at 754. That case involved the Telecommunications Act of 1996, but its logic is equally applicable to the 1992 Cable Act. Whatever the statutory rubric, creating a duty to deal that goes well beyond the careful balance between procompetitive and

[9] *Aspen Skiing,* 472 U.S. at 611 n.44 (declining to rely on that doctrine); *AT&T,* 119 S.Ct. at 753 (Breyer, J., concurring and dissenting) (calling the essential facilities doctrine "an antitrust doctrine that this Court has never adopted") *Aspen Skiing* did hold that a monopolist might sometimes have a duty to deal, but that case did not involve an affirmative duty to deal. Rather it involved a *termination* of prior dealing that was demonstrated to have anticompetitive effects in the market in which the defendant had *monopoly* power. 472 U.S. at 603-11. It thus fit the traditional monopolization test of exclusionary conduct that enhances the defendant's monopoly power. *Id.* at 595-96. The essential facility doctrine, in contrast, purports to create an *affirmative* duty to deal with rivals to avoid an anticompetitive effect in a *non-monopoly* market that, as the economic analysis below shows, has only a possible and indirect effect on the monopoly market by perhaps affecting the likelihood of entry into that monopoly market.

anticompetitive effects struck by essential facilities doctrine will upset that balance and thus have predominantly anticompetitive effects that Congress did not intend.

To understand the sharp limits on the essential facilities doctrine, we must recall that the general antitrust rule is that firms have no duty to deal or share their facilities with others. This is because "[i]t is axiomatic that the antitrust laws were passed for 'the protection of competition, not competitors.'" *Brooke Group v. Brown & Williamson*, 509 U.S. 209, 224 (1993). A system that relies on competition must generally allow firms to choose with whom they wish to deal, for competition involves competing for the patronage of other firms. If every firm had a duty to deal with every other firm, no firm would have to compete for each other's business. It is worth quoting Justice Breyer again: "Rules that force firms to share every resource or element of a business would create, not competition, but pervasive regulation, for the regulators, not the marketplace, would set the relevant terms." *AT&T v. Iowa Utilities Board*, 119 S.Ct. 721, 754 (Breyer, J., concurring and dissenting). Thus, under antitrust law, a non-monopolist has an absolute privilege to refuse to deal with whomever it wants.[10] A monopolist generally has the same right, which is restricted only in special circumstances where the refusal is both improper and increases or protects the monopoly power. *Aspen Skiing v. Aspen Highlands,* 472 U.S. 585, 600-01 (1985).

Whether the essential facilities doctrine is a proper exception to this limited rule is an issue the U.S. Supreme Court has pointedly never reached.[11] But the lower appellate courts that have developed it have held that, if the doctrine exists at all, the following elements must be shown: "(1) control of the essential facility by a monopolist; (2) a competitor's inability practically or reasonably to duplicate the

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[10] *United States v. Colgate,* 250 U.S. 300, 307 (1919) ("In the absence of any purpose to create or maintain a monopoly, the act does not restrict the long recognized right of trader or manufacturer engaged in an entirely private business, freely to exercise his own independent discretion as to parties with whom he will deal"); *United States v. Trans-Missouri Freight Ass'n,* 166 U. S. 290, 320 ("The trader or manufacturer, on the other hand, carries on an entirely private business, and can sell to whom he pleases."); *Eastern States Retail Lumber Dealers' Ass'n v. United States,* 234 U. S. 600, 614 ("A retail dealer has the unquestioned right to stop dealing with a wholesaler for reasons sufficient to himself, and may do so because he thinks such dealer is acting unfairly in trying to undermine his trade.")

[11] *See supra* note 9.

essential facility; (3) the denial of the use of the facility to a competitor; and (4) the feasibility of providing the facility."[12]

The first legal element comprises two separate subelements. First, the owner of the facility must have a genuine monopoly. The cases have emphasized that lesser forms of market power do not suffice.[13] Second, the denied facility must be "essential" in the sense that lack of access to it would eliminate all rivals in the downstream market.[14] As demonstrated below, these factors are well-grounded in economic analysis, because absent monopoly in the facility and total elimination of rivals in the downstream market, no anticompetitive effect is likely. *See infra* III.

The second legal element also encompasses two subelements. First, the denied firm must to be unable to duplicate the functions served by the essential facility. If the functions served by the essential facility are economically duplicable, then it would be far better to force the rival to develop that capacity for itself, and thus create competition in the alleged monopoly market. A temporary delay in duplication does not suffice; non-duplicability must be permanent.[15] Indeed, the leading antitrust treatise argues that the essential facility should not be considered nonduplicable unless it is (a) a natural monopoly, (b) legally protected from competition, or (c) publicly subsidized, which fits the appellate cases that have

[12] *MCI Communications Corp. v. AT&T*, 708 F.2d 1081, 1132-33 (7th Cir.1983); *Twin Labs. v. Weider Health & Fitness*, 900 F.2d 566, 568-69 (2d Cir.1990); *Ideal Dairy Farms v. John Labatt*, 90 F.3d 737, 748 (3d Cir.1996); *Laurel Sand v. CSX Transp.*, 924 F.2d 539, 544 (4th Cir. 1991); *Ferguson v. Greater Pocatello Chamber of Commerce*, 848 F.2d 976, 983 (9th Cir.1988); *McKenzie v. Mercy Hospital*, 854 F.2d 365, 369 (10th Cir.1988); *Caribbean Broadcasting v. Cable & Wireless*, 148 F.3d 1080, 1088 (D.C.Cir.1998) (same test phrased differently); *Willman v. Heartland Hospital*, 34 F.3d 605, 613 (8th Cir.1994) (same).

[13] *See Twin Labs*, 900 F.2d at 569 (must have "monopoly power"); *Illinois Bell Telephone v. Haines & Co.*, 905 F.2d 1081, 1087 (7th Cir. 1990) (cannot have an essential facility unless you are a monopolist); *Blue Cross v. Marshfield Clinic*, 65 F.3d 1406, 1413 (7th Cir.1995) (no claim where defendant "does not control 100 percent--or even 50 percent--of any properly defined market."); *Paddock Publications v. Chicago Tribune*, 103 F.3d 42, 45 (7th Cir. 1997) (no claim if three firms owned essential facility).

[14] *Alaska Airlines v. United Airlines*, 948 F.2d 536, 544 (9th Cir.1991) ("A facility that is controlled by a single firm will be considered 'essential' only if control of the facility carries with it the power to eliminate competition in the downstream market."); *Twin Labs*, 900 F.2d at 569 ("As the word 'essential' indicates, a plaintiff must show more than inconvenience, or even some economic loss; he must show that an alternative to the facility is not feasible."); *McKenzie*, 854 F.2d at 370-71 (no claim if, after being denied essential facility, plaintiff is still able to compete).

[15] *Alaska Airlines*, 948 F.2d at 544 n.11 ("The power to eliminate competition must not be momentary, but must be at least relatively permanent.")

actually found an essential facility.[16] Second, the denial must increase barriers to entry. Courts have stated that it does not suffice that "duplication of the essential facility would be economically infeasible"; they also require that "denial of its use inflicts a severe handicap on potential [or current] market entrants."[17] As explained in the economic analysis below, this test could not be satisfied unless two-level entry (in both the alleged monopoly and downstream markets) were significantly more difficult than one-level entry (in the essential facility market alone). *See infra* III.

The third legal element is that the essential facility must be denied to a firm that is the defendant's *competitor*. Denial of a facility to a non-competitor raises no antitrust issue.[18] This is because antitrust policy offers no grounds for constraining a firm's choices where it has no anticompetitive incentive and is thus simply exercising its business judgment. Indeed, this element has been held not to be satisfied if the denied firm competes with a firm in which defendant owns only a minority stake.[19]

The fourth legal element about feasibility provides that any demanded sharing must not hamper the operation or efficiency of the essential facility. Courts have held that sharing is not feasible if denying access serves legitimate business reasons like efficiency, customer satisfaction, cost reduction, service quality, avoiding free riding, or maintaining the defendant's capacity to serve its own customers.[20]

In short, stated more precisely, the essential facility doctrine requires proof of six elements before imposing a duty to share access to a facility:

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[16] *See* IIIA AREEDA & HOVENKAMP, ANTITRUST LAW 176 (1996) (proposing this three part test); *MCI*, 708 F.2d at 1133 (finding local telephone connections nonduplicable because a natural and legally protected monopoly); *Fishman v. Wirtz,* 807 F.2d 520, 539 (7th Cir. 1986) (nonduplicable because publicly subsidized stadium); *Hecht v. Pro-Football*, 570 F.2d 982, 992 (D.C. Cir.1977) (same).

[17] *Twin Labs,* 900 F.2d at 568; *Directory Sales Mgmt. v. Ohio Bell Tel.*, 833 F.2d 606, 612 (6th Cir.1987); *Fishman*, 807 F.2d at 539; *Hecht*, 570 F.2d at 992.

[18] *See Interface Group v. Massachusetts Port Authority,* 816 F.2d 9, 12 (1st Cir. 1987); *Ferguson*, 848 F.2d at 983; *Caribbean Broadcasting*, 148 F.3d at 1088-89.

[19] *Caribbean Broadcasting*, 148 F.3d at 1088-89.

[20] *Aspen Skiing*, 472 U.S. at 608-11; *Illinois v. Panhandle Eastern Pipe Line,* 935 F.2d 1469, 1483 (1991); *Abcor Corp. v. AM Int'l,* 916 F.2d 924 (4th Cir. 1990); *Oahu Gas v. Pacific Resources*, 838 F.2d 360, 368-70 (9th Cir. 1988); *SmileCare Dental Group v. Delta Dental Plan*, 88 F.3d 780, 785 (9th Cir. 1996); *MCI*, 708 F.2d at 1132, 1137-38; *Laurel Sand*, 924 F.2d at 545; *Willman,* 34 F.3d at 613; *Southern Pacific v. AT&T,* 740 F.2d 980, 1009 (D.C. Cir. 1984).

(1) The facility owner must have monopoly power.

(2) The facility must be so essential that its denial would eliminate all rivals in the downstream market.

(3) It must be economically unfeasible for downstream rivals to duplicate the functions served by the facility.

(4) Elimination of the downstream rivals must raise entry barriers by requiring two-level entry (into both the downstream and essential facility market) that is much be harder than one-level entry (into just the essential facility market).

(5) The facility owner must be a competitor in the affected downstream market, so that eliminating all downstream rivals monopolizes that market for itself.

(6) No legitimate business reason justifies refusing to share the facility.

As we will see below, these conditions track standard economic analysis showing that imposing the doctrine when those conditions are not met would be inefficient and anticompetitive. *See infra* III.

(2) Regulators Should Not Pre-Judge Whether These Requirements Will Be Met. – As a matter of standard antitrust law, it would thus be utterly premature to act now to impose a sharing rule on ITV platforms. It is impossible to determine whether any of the elements will turn out to be met without knowing precisely what the technology and market structure will look like. Certainly we should not pre-judge the matter before the evidence is in. Indeed, each of the elements seems unlikely to be established in the future, some because they are precluded by other FCC regulations.

First, the Notice seems to assume cable companies will have local market power over ITV platforms. See, e.g., Notice ¶¶ 19, 21-22. But this is highly speculative, for all the reasons noted above, and the antitrust doctrine requires proven fact, not speculation. This requirement of demonstrable proof reflects not only a concern with due process, but the underlying economic reality that unless we are *sure* the monopoly power exists, imposing a duty to share would itself anticompetitively discourage market entry. Absent such monopoly power, no anticompetitive effects are likely to follow from one firm's refusal to share its facilities, and a duty to share will instead interfere with desirable competition for that firm's business. Moreover, the antitrust doctrine requires not just proof of market power, but proof that the *degree* of market power is so high as to justify a conclusion that it constitutes monopoly power. There is no way now to determine whether this will turn out to be true in the future. Indeed, what we do know about these markets suggest that other firms can and will enter the set-top market for ITV platforms, and that many other technologies can and increasingly will compete in broadband and internet access if that becomes the favored ITV platform.

Second, the Notice seems to assume that local market power over consumers suffices to raise the essential facility concern. *See* Notice ¶22. In fact, as the second element stresses, the facility owner must have the power to eliminate all rivals in the downstream market to raise the essential facilities concern. Here that would mean that a single cable company (or some other ITV platform owner) would have to have monopoly power *vis-a-vis* ITV service providers, not *vis-a-vis* cable consumers. *Cf. Time-Warner v. FCC*, 2001 W.L. 201978, at *5-6 (D.C.Cir. March 2, 2001) (striking down 30% market share limit on cable ownership because the limit could be justified only if one cable company had a large enough share of the *national* market to singlehandedly deny a programmer from reaching a sufficient number of viewers to be viable). That is clearly not the case now, nor will it be the case in the future.

To begin with, we do not yet really have a market for ITV, so we cannot know what, if any, ITV platform access will be essential for rivals to survive. Moreover, even if ITV platforms do prove to be essential, the market to which ITV service providers will be able to turn for ITV platforms will not be local but nationwide, if not global. While some localities may only have one cable provider, the nation has many to which ITV service providers can turn even if we assume that all ITV platforms will turn out to be cable. Thus, just as no cable company has a large enough market share to singlehandedly deny a nationwide programmer access to sufficient viewers to be viable, *id.*, so too none will have a large enough market share to deny a nationwide provider of ITV services sufficient viewers. Thus, standard economics and the recent D.C. Circuit opinion clearly indicate that the relevant market for ITV services is at least national if not global. The FCC Notice of Inquiry is instead based on the mistaken premise that "the geographic market for ITV services is local." Notice ¶22.

Indeed, far from supporting a prediction that any ITV platform owner will be in a position to deny ITV service providers access to an essential facility, the regulatory context dictates precisely the opposite prediction. Whatever market share limits are adopted after remand from the D.C. Circuit's opinion in order to protect nationwide programmers from cable monopoly power will also protect nationwide providers of ITV services. If the opinion were reversed by the U.S. Supreme Court, then that would reinstate even lower market limits that offer even greater protection against nationwide exercises of market power. Thus, whatever the outcome of this litigation, *the FCC's own market share regulations will assure that in the future the second element necessary to justify mandated-access regulations for cable-owned ITV platforms cannot be met.*

Third, there is no evidence that it would be economically unfeasible for rival suppliers of ITV services to duplicate the functions served by any ITV platform. This is especially true since at this nascent stage we are not talking so much about duplication as about the first creation of ITV platforms. Cable companies, like any other companies, would have to invest significant sums to make their wires digital and then make any digital wiring suitable for ITV services. Such investments by any company may, as noted above, become unfeasible if burdensome regulations are imposed on creators of ITV platforms. But absent such regulations, there is no firm basis to assume that such future investments would be profitable for cable companies but utterly unfeasible for their rivals. Those rivals can associate (and are doing so) with alternative platforms like DBS or set-top boxes, or can lay their own cable wires. Nor can rivals claim that any efforts to duplicate would be precluded by building delays since at the current time rivals and incumbent cable companies would both be building to establish ITV platforms for future markets that have not yet developed. As noted above, the major problem with the regulatory strategy suggested in the Notice of Inquiry is that it would induce rivals *not* to duplicate ITV platforms in this important initial stage of development of ITV markets, which would leave the market less competitive than it would have been without the regulations.

Again, one could always speculate that cable ITV platforms will prove to be nonduplicable natural monopolies. But the FCC's own recent report indicates that this speculation would be untrue even if we assumed that local broadband delivery will provide all ITV platforms in the future. *See* FCC Report 99-5, at ¶¶ 48, 52 (not only is cable broadband not a monopoly or natural monopoly, but cable providers were not even likely to enjoy a duopoly in local broadband). Moreover, the reason for these antitrust factors in the essential facilities doctrine is to avoid impositions of a duty to share that would affirmatively hinder competition. To be sure the antitrust doctrine does not itself hamper competition, it effectively provides for a market test of the proposition that an essential facility will be a nonduplicable natural monopoly. One cannot enlist the aid of antitrust law to ensure that a (shared) monopoly is created before the inevitability of some monopoly has been established via a market test.

Fourth, even if the other factors were met, there would be no reason to think that any denial of an ITV platform would raise entry barriers. To raise entry barriers, it would have to be the case both that (1) denial of access to the essential facility means that entrants will need to engage in two-level entry into ITV platforms and services, rather than just one-level entry into ITV platforms; and (2) jointly providing an ITV platform with ITV services (two-level entry) is much harder than providing an ITV platform alone (one-level entry). There is little reason to think so.

To begin with, even if we speculate that every cable company will have a local monopoly for ITV platforms, many cable companies will choose to use independent ITV service providers rather than provide those services in-house. Those independent ITV service providers will remain able to engage in one-level entry into any ITV platform. Television networks are also likely to be independently involved in the development of ITV services for their own shows. Indeed, even if each cable company does provide all ITV services in-house, each will thus effectively be in the ITV service market. Each cable ITV service provider will thus be able to engage in one-level entry into any local ITV market dominated by another company. Accordingly, a cable company that denies ITV access to rival service providers could not possibly increase entry barriers to the ITV market by requiring "two-level" entry. The requisite entry would require building a local ITV platform, but that one-level entry barrier exists even under mandated-access regulation. Such regulation thus cannot lower this entry barrier – indeed, it raises this entry barrier in two ways: (1) by lowering the cost of not entering local ITV platform markets; (2) by discouraging the entry of cable companies into the ITV service provider market, from whence they would be better positioned to enter another cable company's local ITV market than would ITV service providers that lack any cable expertise.

Moreover, the major capital costs of entry are in building an ITV platform. The additional costs of providing ITV services are relatively small, especially since an entrant into a local ITV market could buy or lease those services from other firms, or just combine with ITV service providers. ITV service provision likely will not require large fixed capital costs committed to particular geographic regions. Rather, it will require the sort of software expertise that is widespread and globally available, and thus does not pose significant entry costs in commitments to particular regions. Indeed, the FCC Notice of Inquiry itself acknowledges that "entry into ITV service provision is relatively easy." Notice ¶37. The implication the Notice apparently fails to see is that, since this is so, no significant additional entry barriers are created from having to provide ITV services along with an ITV platform, and thus two-level entry cannot be significantly harder than one-level entry, as this element requires.

There is thus no reason to think that any firm that has a local monopoly over both ITV platform and services enjoys any greater entry barriers or market power than a firm that has a local monopoly over an ITV platform alone. It would follow that no anticompetitive harm can follow from vertical integration of the ITV platform and services, and that the ITV platform owner would have no incentive to inefficiently exclude rival ITV service providers. *See infra* III.

Fifth, the essential facilities doctrine requires a showing that the ITV platform owner was a competitor in the "downstream" ITV services market, so that eliminating all rival producers of ITV services would monopolize the ITV service market for itself. At various points, the FCC Notice of Inquiry indicates that any suggested regulation would be limited to cases where an essential facilities owner has an affiliated ITV services. *See* Notice ¶3, 21. This is sensible since such a limit is clearly required by the fifth element of the essential facilities test, and without it the ITV platform owner could not have any economic incentive to favor itself. But, as noted above, the problem with imposing this regulatory requirement in advance – before the markets have even been created – is that it will discourage economically efficient and socially desirable entry by cable companies into the ITV services market. *See supra* II.B(3). Moreover, even when this element *is* met, an ITV platform owner generally would lack any economic incentive to favor itself over rival ITV service providers. *See infra* III.

Worse, at other points, the Notice invites comment on whether it should adopt mandated-access regulations applicable even to ITV platforms that have no affiliated ITV service provider. *See* Notice ¶3, 22. Any such regulation would plainly fail to meet the fifth factor, and would thus be entirely misguided. It would hamper competition and efficiency in a case where there is absolutely no reason to think ITV platform owners would have any anticompetitive incentives. In particular, if an ITV platform owner chooses to provide access to only one or a limited number of unaffiliated ITV service providers, *see* Notice ¶22, that is an affirmative indication that sharing ITV platforms is inefficient, not that market power is being exercised.

Sixth, one cannot at this early stage possibly determine that there will not be legitimate business reasons for refusing to share ITV platforms. What we do know now suggests there are powerful reasons to think there will often be legitimate business reasons not to divide and share access among rivals with conflicting interests.

Sharing an ITV platform with rival firms might impose additional costs. One might try to compensate for this by requiring rival ITV service providers to pay more to cover the higher costs they impose, including any additional degradation of quality or speed. But this would be inconsistent with the regulatory tack suggested by the Notice. *See* Notice ¶¶ 24, 40. Such an equal pricing rule may well be necessary if the rule is to have any hope of administrability, though even then serious adminstrability problems remain. *See infra* IV. But such a single pricing rule mandates inefficient and more costly (or lower quality) ITV services if it fails to consider the higher costs imposed by some service providers. It is unclear whether the "audit" contemplated by the FCC regulation would even allow consideration of the fact that there will be differences in the costs of providing access to different firms once access is already divided. *See* Notice ¶40. If it does, it likely makes the scheme inadministrable. If it does not, it makes the scheme affirmatively inefficient.

Morever, even if the variance of costs imposed by different ITV service providers *were* considered, it would miss the essential dilemma. The problem is not just that, after sharing is required, some independent ITV service providers will impose higher costs than others. The problem is that the very act of sharing imposes higher costs for everyone, a cost that ultimately has to be passed on to consumers. The Notice of Inquiry does not show any signs of having considered the inefficiencies created by the division of access itself. But if it is cheaper or better for consumers to get ITV services and platforms from one company, it would be unwise to force ITV platform owners to connect to independent ITV service providers just to preserve the latter's existence. That would protect competitors, but not competition. Efficient vertical integration is desirable for consumers, and sound market rules should not interfere with it.

Here, such integration efficiencies are highly likely to exist. One such efficiency is "process flow" efficiency, which can lower production costs.[21] Just as it is cheaper and faster to take a nonstop plane than to change planes, so too it may be cheaper and faster to have nonstop transportation of ITV information in a video pipeline by one company rather than have to change via routers from one company to another. Adding another ITV service provider might, as the Notice acknowledges, degrade video quality. Notice ¶28. Or information flow and

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[21] AREEDA & HOVENKAMP, *supra*, at 26.

performance within a set top box might be impaired by sharing, just as computer performance is impaired by having multiple programs open at the same time. These sorts of concerns are especially significant in the early stages of technological development when firms are testing and experimenting to figure out what works.

Another important integration efficiency is avoiding the transaction costs of resolving disputes between separate firms with conflicting economic interests. Whenever one requires actors with opposing economic incentives to divide and share a single resource, there will inevitably be arguments about the best way to divide, improve, and manage the resource. Such transaction costs may seem less tangible, but Nobel Prize winner Ronald Coase has shown they are actually the reason why firms exist at all.[22]

Some of the saved transaction costs may simply be the costs of overseeing the sharing of any ITV platform. More troubling, losing control over information flow can disrupt speed and service. If the bandwith is divided among multiple ITV service providers, *see* Notice ¶26, none may be able to provide the fast, cheap transmission they could with greater bandwith. And much of the bandwith will go wastefully unused by ITV service providers that are less successful than others. If, to avoid this problem, multiple ITV service providers send information along the same bandwith, each has insufficient incentives to consider the impact of its decisions on the speed and reliability of system as a whole. If one firm hogs a lot of bandwith at once, that firm will derive all the benefits of the decision to use extra capacity, but the harm of decreased speed or possible disruption will be shared with all service providers. Each service provider decision might thus impose externalities on each other, which will either harm quality, require costly monitoring of service provider behavior, or force local ITV platform owners to build extra capacity to accommodate the increased and uncoordinated information flow.

Likewise, the sending of ITV information may involve difficult design questions. The design of the ITV services may have implications for traffic on the ITV platform, and vice versa. Such varying designs are hard to coordinate, and even if the firms bargain them out, each firm has incentives to deviate or interpret any contract in its favor. It can be far better (and cheaper) to have one set of engineers working for one firm with one joint profit motive to solve the design problems for the system as a whole.

[22] *Id.* at 26-28.

D. It Is Premature to Decide How to Regulate

Even if it were not premature to decide *whether* to regulate, it is clearly premature to decide *how* to regulate mandated access to ITV platforms. It is impossible to tell now what the optimal regulation would be (if and when the supposed regulatory predicate arose) because the optimal form of regulation depends on the precise details of the technology and market structure. And those details are now unknowable.

For reasons explained above, we do not yet even know what will constitute ITV platforms and services. The answer will depend in part on future technological developments, and in part on what future demand suggests about the economics of providing them separately. *See supra* II.A. Moreover, even if technological and economic developments suggest certain product definitions, those might not be the appropriate ones for government regulation unless they fit the functional purposes of that regulation. For example, even if one supposes that in the future ITV platforms will be essential for *some* ITV services, it is hard to predict at the current time *which* ITV services it will be essential for. As the Notice acknowledges, to some extent television stations will be able to provide ITV services with their video signal, and it is not at all clear that an ITV platform will be necessary for electronic program guides. *See* Notice ¶¶ 10, 15. If the ITV platform in question turns out to *not* be essential for the provision of the ITV service, then no equal access regulation should apply to it. Likewise, one might predict that some features will be part of an ITV platform according to technological considerations or future economic market definition, but be duplicable by ITV service providers. If so, such features should not be included within the regulatory definition of any ITV platform subject to any equal sharing obligation. Similar considerations matter in determining precisely which ITV platform features a firm has monopoly power over, and precisely which ITV services would pose significant entry barriers if rival service providers were eliminated, even if one assumes (contrary to likely fact) that some such monopoly power and significant entry barriers will exist in the future.

In short, some services might properly be deemed ITV platforms or services for technological or product definition purposes, but not properly be deemed ITV platforms or services for purposes of mandatory-access regulation. The answer will depend on future market developments that establish which features of ITV platforms are nonduplicable and essential for which ITV services, and to what extent. The answer will also depend on which features of ITV platforms evidence monopoly power and which features of ITV services pose the concern about entry barriers. These issues cannot possibly be determined at this extremely early stage.

Even if we knew enough to define the future ITV platform and service markets for regulatory purposes, and determine which were essential to the other, it would be premature to define the scope and content of any duty of nondiscrimination. The above analysis shows there are likely to be technological and efficiency limits for any duty to share an ITV platform. Thus, even if one could predict now that some sharing will prove to be technologically and economically feasible in the future, one cannot know now what the optimal limits on such a duty of equal sharing will be. Rather, the optimal limits will depend on what the future ITV technology and market looks like, which will determine the precise point at which further sharing becomes inefficient and harmful to consumers. Further, even if we could predict now what the proper *scope* of a duty of nondiscrimation would be in the future, the content will be hard to define. Without knowing more about the variations in future ITV services and platforms, and how they technologically interact with each other, one cannot define what it means to discriminate against a given ITV service, as opposed to properly taking into account technological or economic differences.

On all these issues, one could simply say that there will be some duty of nondiscrimination, and leave it up to future regulators to define its scope and content. But such an approach would simply highlight how premature it is to enact any regulation now. Moreover, such massive uncertainty would – in and of itself – deter investment in ITV platforms and services. Thus, such uncertainty would compound the disincentives to investment created by the *ex ante* concerns noted above.

III. THE HYPOTHESIZED REGULATORY PREDICATE DOES NOT JUSTIFY MANDATED-ACCESS REGULATION

Even if it were possible to definitively predict at this early stage that cable companies will have future monopoly power over ITV platforms, this would not suffice to justify mandated-access regulation despite the FCC identification of this as the predicate for regulation. Notice ¶38. The Notice masks this flaw in reasoning by beginning its discussion of a nondiscrimination rule with the "hypothetical assumption" that "cable operators are likely to have the incentive and the ability to favor affiliated ITV service providers over non-affiliated ones." Notice ¶21. The Notice, in other words, simply posits – rather than addresses – the need for a nondiscrimination requirement. Long-established antitrust law and economics indicates that this is the wrong starting point.

Even if cable companies were to have local monopoly power in ITV platforms, they would have incentives to favor their ITV services affiliates *only* when that would be efficient.[23] There are three general reasons why this is so. First, monopolists usually have no incentive to "leverage" an essential facility into a downstream market absent an efficiency justification. Second, local monopoly power over ITV platforms cannot be leveraged into monopoly power over ITV services in any event because the market to which ITV service providers can turn is national in scope. Finally, network externalities would prevent a cable company choosing an inferior affiliated ITV service provider.

The essential facility concern is that a monopolist who denies access to its essential facility can drive rivals out of a related market and thus "leverage" its existing monopoly into a new monopoly in the related market. It must first be recognized that the ability to create a new monopoly by denying access to an essential facility exists only in highly limited circumstances. The defendant must have a real monopoly over the essential facility, not just market power. If rival providers of the essential facility exist, or can enter that market, then those in the related market do not need the alleged monopolist to remain in the market. The alleged monopolist must also compete in the related market. Otherwise, it cannot monopolize the related market and has no anticompetitive motive for denying access to some firms in the related market over others. The facility must be so essential that lack of access to it drives *all* rivals out of the related market. If some rivals are driven out, but not others, no monopoly will be created. Likewise, if rivals lose some customers but can stay in business by servicing other customers, no monopoly will be created.

[23] There is even less reason to possibly question, as Notice ¶22 suggests, exclusive contracts a cable company might reach with an unaffiliated ITV provider.

These limited economic circumstances are all reflected in antitrust's essential facilities doctrine, *see supra* II.C, but not in the factual predicate the Notice seems to presuppose would justify mandated-access regulation of ITV platforms. Moreover, even when all these factors are established, they do not normally form the predicate for assuming that the owner of the essential facility has any economic incentive to inefficiently favor itself in order to impose anticompetitive harm in the related market. To the contrary, standard antitrust economics suggests that any "monopoly leveraging" is not harmful to consumers and that firms thus generally have incentives to vertically integrate only when it is efficient to do so.

A. Creation of Downstream Monopoly Not Itself Harmful

The creation of a new monopoly downstream (or upstream), even if it were likely to occur, would not by itself harm consumers. This runs counter to the intuition that the creation of a second monopoly must be bad. But this intuition proves misguided. To see why, it is useful to focus on the fact that whether or not the ITV services market is competitive, a consumer interested in receiving ITV services would still (if the FCC's regulatory predicate were true) face a monopolist because he must also get an ITV platform. Unless we can affect entry into the alleged monopoly market (here ITV platforms), allowing the sole provider in that market to become the sole provider in downstream (or upstream) markets cannot alone increase market prices.[24]

For example, suppose a hypothetical monopolist's profit-maximizing price for the combination of ITV platform with services were $50/month. Suppose further that a competitive market for ITV services standing alone would make the price for such services $10/month. In that case, a mandated sharing rule will not lower prices to consumers even if we assume (contrary to fact) that the sharing itself will not increase costs. The reason is that the hypothetical monopolist of ITV platforms would simply charge $40/month for access to the ITV platform. The total price to consumers would thus be $50/month whether the monopolist connected ITV service rivals to its ITV platform or, by denying such connections, was able to extend its monopoly to ITV services. Efficiencies may mean that combining ITV platforms and services actually lowers consumer prices, as noted next, but absent such efficiencies the price to consumers will be unaffected by the mere extension of any ITV platform monopoly to a downstream ITV services market.

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[24] *See* AREEDA & HOVENKAMP, *supra*, at 14-15, 174-75.

B. Monopolist Will Normally Self-Provide Downstream Only If Efficient

Denying rivals access to the essential facility generally means that the alleged monopolist must self-provide whatever those rivals were providing in the downstream (or upstream) market. Absent some net effect on entry in the alleged monopoly market, the monopolist generally has incentives to replace competition in downstream (or upstream) markets with self-provision *only* when self-provision is more efficient and better for consumers. If, for example, providing ITV services itself would cost a hypothetical monopolist $15 instead of $10, then the monopolist would make less money with self-provision because it would have to charge only $35 for the ITV platform to make up for the $5 increased cost from self-providing ITV services. The monopolist would thus provide the ITV services itself only if it could do so for $10 or less, and any cost savings would partially be passed on to consumers. Likewise, a hypothetical monopolist will not substitute lower quality in-house ITV services for higher quality independent ITV services that cost the same, for such a substitution would simply decrease what customers will pay and thus what the monopolist could charge for its ITV platform. It would vertically integrate (at the same cost) only if self-provision of ITV services improved quality.

This normal economic incentive is only enhanced by the presence of network externalities in ITV markets.[25] ITV services, such as supplemental information about TV programs being shown, are a complementary good to the access provided by ITV platforms. Customers will be willing to pay for using a cable ITV platform because it provides them with content that they value. The ITV platform by itself is of no use. The value of an ITV platform, and hence what the owner can charge customers for its use, will therefore depend on the content, including ITV services, that a customer can enjoy by using that platform. And, in turn, the likelihood that content suitable for transmission by the platform will be produced depends on the number of customers using that platform.

Economic analysis indicates that a monopolist, given this network externality effect, will have an incentive to ensure that its customers receive the complements

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[25] James Speta, *Handicapping the Race for the Last Mile? A Critique of Open Access Rules for Broadband Platforms,* 17 YALE J. REG. 39, 76-88 (2000).

they want.[26] The ready availability of any complementary goods customers desire increases the value of the monopolist's asset. Moreover, if this has the effect of enticing even more customers to subscribe to the platform, this will further increase the incentive of ITV service providers to provide services compatible with the platform's technology. Of course, the nature of any network externality effects that could have a significant impact on the provision of ITV services is necessarily speculative given that the ITV market is just evolving. Again, waiting for this industry to develop further is crucial in answering these important questions.

An ITV platform owner that declines to deal with a rival ITV service provider will thus generally do so only for legitimate efficiency reasons. The particular ITV provider's services might not be technically appropriate for the platform. While the platform owner will not arbitrary exclude services its customers want, it will want to ensure that the services they do receive are delivered satisfactorily. Under an mandated-access regime, such judgments could no longer be made by the platform owner but would have to be done through the regulatory process. Given the inevitable inaccuracies of any adjudicative process,[27] some ITV service providers will win a right of access even when it would have been efficient to deny them. Because there is no reason to think an ITV platform monopolist will have incentives to deny access inefficiently, the predictable result is that such regulation will produce greater inefficiency, and thus higher costs and lower quality, than allowing free market choices by ITV platform owners about whom they deal with for ITV services.

Alternatively, an ITV platform owner may decline to deal with *any* rival ITV service provider because it has determined that self-provision of ITV services is more efficient: that is, either less costly or higher quality. There are two reasons why self-provision might be more efficient. *First,* it might reflect the efficiencies of vertical integration rather than sharing facilities. *See supra* II.C. Firms in the presence of network externalities have especially strong efficient incentives to vertically integrate to assure customers of supply of high-quality complements at reasonable costs. The suggested FCC regulation would discourage this efficient

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[26] See, e.g., Michael Katz & Carl Shapiro, *Systems Competition and Network Effects*, 8 J. ECON. PERSP. 93 (1994); Nicholas Economides, *Network Externalities, Complementaries, and Invitations to Enter*, 12 EUR. J. POL. ECON. 211 (1996).

[27] *See* Bundy & Elhauge, *Knowledge About Legal Sanctions*, 92 MICH. L. REV. 201 (1993).

vertical integration because access rules, with all its burdens, are targeted at vertically integrated firms.

Second, self-provision can eliminate a problem of successive market power. For example, suppose there were both an ITV platform monopolist and an ITV services monopolist. The ITV platform monopolist would charge $40/month. But the ITV services monopolist would not be content with the competitive rate of $10/month. Instead it would charge more than $10/month to exploit his market power, thus bringing the total price above the $50/month that a single profit-maximizing monopolist would charge if it owned both the ITV platform and service. The underlying problem in successive monopolies is that each monopolist sets prices where its marginal revenue equals its marginal costs. If there is only one monopolist operating at all levels, the costs it considers are actual costs. But if there are separate monopolists who operate at separate levels, the costs each considers have been inflated by the monopoly pricing of firms upstream. The point can be generalized to any case when the upstream or downstream market is to some extent noncompetitive, including oligopolistic markets. Prices will be generally lower, and market output higher, if a firm with market power in the alleged monopoly market extends its market power to any noncompetitive upstream or downstream market.[28]

C. Possible Anticompetitive Effects on Entry Are Mixed Even in Worst Case, and Non-Existent for ITV markets

The only anticompetitive effect that might countervail these procompetitive effects is some adverse effect on entry in the alleged monopoly market, which could in theory increase the degree of market power. However, a duty to share the essential facility has conflicting effects on such entry.

On the one hand, a duty to share the essential facility perversely *decreases* the incentive of rivals to enter the alleged monopoly market and provide genuine independent competition because upstream or downstream rivals can instead invoke a right to share in access to the alleged monopoly.[29] To the extent this is true, the duty to share the monopoly discourages entry. It protects competitors at the cost of harming competition. The doctrine should thus never be applied when it would be economically feasible for rivals to duplicate the functions of the alleged essential

[28] AREEDA & HOVENKAMP, *supra*, at 29-34.
[29] AREEDA & HOVENKAMP, *supra*, at 175.

facility. As noted above, this is a insuperable problem for any proposal to impose mandated access regulations on ITV markets. *See supra* II.

On the other hand, if a refusal to share actually succeeds in driving all rivals out of the upstream or downstream market, then it may eliminate the most likely entrants into the alleged monopoly market. This may make entering the alleged monopoly market significantly more difficult. But this will be true *only* if simultaneous entry in the alleged monopoly market and the related market is significantly more difficult than entry into the monopoly market alone.[30] For example, if entering the ITV platform and services markets at the same time is not significantly more difficult than just entering the ITV platform market, then entry barriers are not increased, and thus monopoly power is not increased. This again seems to be a contraindication for any mandated-access regulation of ITV platforms since in fact the entry barriers to the ITV market are low. *See supra* II.C.

Because any increase in entry barriers results from a difference between two-level entry and one-level entry, no increase is possible unless *all* rivals are driven out of the upstream or downstream market, for if any rival remains it need only engage in one-level entry. For example, if ITV service rivals outside Boston remain in business even though everyone using the ITV platform in the Boston cable market must use the Boston cable company's ITV services, then those remaining rivals can enter the Boston ITV platform market just as easily as they could before. This is why no essential facility problem can be said to exist unless denying the essential facility would produce actual monopolization of the upstream or downstream market. Unless the behavior produces foreclosures in both the monopoly market and affected downstream (or upstream) market that are each so huge that one-level entry becomes impossible, then the behavior has not increased barriers to entry by requiring two-level entry.

Here, the market for ITV services is national, and any cable market power is local and prevented by FCC regulation from becoming national. *See supra* II.C. Certainly, any regulation suggested by the current Notice would have to exclude cable operators who lack even local market power, as well as small cable operators who with less than 1% of the national market who could not conceivably exercise any national market power. *See* Notice ¶¶ 23, 25 & n.20. But the problem is far broader than that. Even for the largest cable operators, none has even a potential incentive for monopoly leveraging because none has a sufficiently large share of the

[30] AREEDA & HOVENKAMP, *supra*, at 21-23.

national market to make it a monopolist in the ITV services market if the hypothesized "leveraging" occurred.

Thus, any foreclosure of some ITV service providers will leave enough other providers in the market that entry barriers to ITV platform markets cannot be altered. Even foreclosing all rival ITV service providers is unlikely to seriously affect entry barriers since the marginal increase in entry costs is low. *See supra* II.C. Any adverse economic impact on ITV services market would only matter if ITV service providers would be the best entrants into local cable markets. But paradoxically, mandated-access regulation would itself discourage entry by ITV service providers into local ITV platform markets now.

In short, it is implausible that any local ITV platform could hope to raise entry barriers by denying access to rival ITV service providers. Because it could not raise entry barriers, it would have incentives to deny access if and only if such a denial were efficient: either because the denied service provider would not efficiently fit the platform or because vertical integration of ITV platforms and services is more efficient. Any interference with such decisions would make ITV markets inefficient, with higher costs or lower quality for consumers.

IV. DIFFICULTIES IN SETTING THE TERMS OF ACCESS

Even if it were the case that we could with confidence predict that in the future denials of access will impose anticompetitive effects that outweigh the normal procompetitive incentives of firms to make efficient choices, there remain enormous problems in enforcing a duty to provide access. The tribunal enforcing the duty would have to define the price and other terms at which the monopolist must offer the access to its rivals. The substantial administrative difficulties with accomplishing this task help explain why courts are reluctant to impose this duty even when the conditions for an essential facilities are otherwise met.

A. Setting the Price

The Notice seems to contemplate that prices will be set equal to whatever the vertically integrated firm charges its own ITV service provider for a local ITV platform access. *See* Notice ¶¶ 24, 40. But if a vertically integrated firm is providing a service to itself, there is no real arms-length "price" benchmark to which an agency can look. The firm may not set an internal price at all, and if it does could set the price arbitrarily low or high since the effect on joint profits would be the same either way. If any internal prices exist at all, they will reflect the firm's internal management practices, not a market process.

Regulators would thus have to construct the appropriate price cable companies could charge for access. This is an extraordinary difficult task even for an expert agency given the information necessary to make such a determination. The needed information would include knowledge of each cable companies' cost structure and the risk the companies anticipated in making the initial investments. Moreover, the problem is not just one of doing an accounting audit, as presupposed by the Notice. See Notice ¶40. The issue involves fundamental economic questions about the proper rate of return to compensate ITV platform builders for risk, innovation and investments. These questions have no objective answers that can be resolved by technical means, but rather are questions best resolved by the market.

Suppose, for concreteness sake, the FCC adopted a total element long-run incremental cost pricing rule, the pricing rule apparently endorsed by the FCC in other regulatory contexts.[31] There are a number of well-recognized deficiencies with a such a rule that illustrate the difficulties facing a regulatory agency.

First, costs are notoriously difficult to measure, especially when there are difficult questions about how to allocate joint production costs across multiple users. Forcing the creation of obligatory internal transfer pricing might also eliminate the very transaction cost savings that vertical integration is meant to produce by avoiding market transactions.

Second, a satisfactory pricing rule must allow cable companies to recover for the risk that their ITV platform will be commercially unsuccessful. If the ITV platform is a commercial failure, no ITV providers will choose to exercise their legal right to use the ITV platform. It follows that the price ITV platform owners should be allowed to charge should compensate them for the probabilities (measured at the time of the investment decision) that states of the world might have arisen that would leave them bear the loss of a failed investment. *See supra* Section II.B. A pricing rule based on incremental costs fails to do this. It is hard to see how regulators could correct for this. Tellingly, the FCC in the past in other regulatory contexts has not even tried.[32] How would a regulator setting the price (who is

31 See 47 C.F.R. 51.503 - 51.505 (1997).

32 See Implementation of the Local Competition Provisions in the Telecommunications Act of 1996 and Interconnection Between Local Exchange Carriers and Commercial Mobile Radio

almost always operating ex post) know the ex ante probability of failure and the extent of the losses flowing from that failure? Indeed, even this is too simplistic a formulation of the informational problem. In the real world, there are likely to be a range of probabilities for various types of failures with differing magnitudes. All these probabilities would need to be estimated in the process of setting the price term.

Third, ITV platform owners would also have to be rewarded for their expenditures on innovation and investment to create a valuable new product. Such innovation and investment is generally entitled to some "above-market" rate of return. But just what the proper above-market rate of return should be does not lend itself to regulatory judgment. The question is normally determined by letting the firm that creates a valuable resource through innovation or investment exclude rivals from the products of that innovation and investment and charge what the market will bear. The more valuable the resource they create, the greater their supra-market return. Thus, intellectual property rights grant the right to exclude rivals from the fruits of innovation, and ordinary property rights grant the right to exclude rivals from the fruits of physical investments. The fact that those rights of exclusion may sometimes enable firms to charge above-market or even monopoly prices is their proper social reward for innovating or investing to create something so valuable, with the degree to which they can charge over normal market rates being justly proportional to the extent firms have created value that existing market options had not provided. Sharing rules in effect take away these property rights of exclusion without making clear what the alternative pricing mechanism should be.

Fourth, whenever a regulatory process replaces the market, regulators need to bear in mind the incentive of companies to game the regulatory process for unfair advantage. Even if regulators have good methods for pricing, miscalculations are inevitable. And any miscalculation in the pricing rule will affect which features of an ITV platform competitors will strategically seek to unbundle. For example, if the pricing rule inadequately compensates for common costs (costs jointly incurred in the provision of a service subject to mandated access regulation and another, nonregulated service), then a competitor will have an incentive to game the system by requesting ever finer partitions of the services that need to be separately

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Service Providers, First Report and Order, 11 F.C.C.R. (1996) 15,499, 15,849 (discussing the need for, although not implementing, high depreciation rates in setting prices for access).

unbundled.[33] If there are common costs incurred in providing the different functionalities of an ITV platform that are capable of being separately unbundled then a competitor would have an incentive to seek to have these different capabilities unbundled. This would shift the costs of using the ITV platform from the user to the owner.

Moreover, increasing the number of capabilities subject to mandated access regulation will increase the costs to the owner of complying with the regulation. Unbundling might create additional technical and/or administrative costs to the owner – costs that a pricing rule would have difficulty capturing. Competitors will naturally have an incentive to increase the costs to their rivals through the regulatory process even if these costs have no offsetting consumer welfare benefits.

Of course, it is very difficult to know how serious a problem regulatory gaming would be given the early stages of the ITV industry. This is because, as was discussed above, it is unclear at this point in time what nondiscrimination would actually mean in the ITV context. The answers will likely become clearer as time passes and the ITV market evolves. This counsels for patience before embarking on a new, complex regulatory undertaking whose utility and feasibility depends on what this new industry will actually look like.

B. Setting Non-Price Terms

To impose any mandated-access regulation, the FCC would have to set all non-price terms as well, including any obligations the ITV platform provider has to either expand capacity or allocate scarce capacity among competing ITV service providers. Review would also have to be made of design or management issues that might impact different ITV service providers differently. And any rules set on these nonprice terms would have to monitored by the FCC.

As noted above, the agency would need to allow denial of access for technical or efficiency reasons, both of which will be extremely difficult to define. *See supra* II.C. But the problem is not just defining the standards in the abstract, but determining whether they are met in the particular case, which will be an enormously expensive and uncertain task. Such a process is likely to produce

33 Of course, how an ITV platform's capabilities might be subdivided in the future is necessarily speculative given the current state of technology, further underscoring the premature nature of any regulation at this point.

endless arguing about non-price terms. One concern in literature, in particular, involves demands for "bug-free" services by free-riders.[34] Such a demanding standard might not be feasible with new technology, but it is difficult for tribunals (or rivals) to determine whether a particular problem was an inevitable product of the early stage of technological development – especially since once the problem has arisen its cure often looks obvious in retrospect.

C. Summary

Setting and adjudicating the application of any nondiscrimination standard is thus a task full of complications and likely inaccuracies. The inevitable economic error in enforcing any nondiscrimination standard likely exceeds any economic inefficiency created by possible abuses of economic power even where (unlike here) valid concerns are raised by the existence of an essential facility.

V. CONCLUSION

The first rule for regulators should be the same as for medical doctors under the Hippocratic oath: "Do no harm." Here the suggested course of regulation would be highly harmful. The imposition of regulation – indeed the mere suggestion that regulation might be imposed – is likely to deter the innovation and investments necessary to create ITV platforms in local markets throughout our land, and to deter the entry necessary make markets for ITV platforms and services competitive. Regulation will also likely distort or freeze technological developments that would otherwise determine the future progress of ITV markets.

Even if these harms were not likely to affirmatively result from regulation, it would be inappropriate to pre-judge the issue whether problems justifying regulation will be met in the future. Any error in making such pre-judgments will plainly produce anticompetitive harm not only *ex ante* but *ex post*. That is especially true here where those problems seem technically unlikely to arise, and legally seem precluded by existing FCC regulations on the ability of any cable operator to get national market power.

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[34] *See* Thomas Jorde, J. Sidak, David Teere, *Innovation, Investment, and Unbundling,* 17 YALE J. REG. 1, 23-24 (2000).

These risks of harm from regulation are particularly not worth bearing because the futuristic state of affairs that the Notice thinks would be a predicate for regulation in fact does not justify such regulation. Even if this predicate were indisputably true today, it would not suggest that ITV platform owners would have any incentive to discriminate against efficient rival ITV service providers. There is thus no reason to think their economic decisions about which ITV service providers to deal with would be improved by regulatory oversight. To the contrary, the inability to accurately frame and enforce proper standards for nondiscriminatory access suggests that regulatory oversight is likely to worsen decisionmaking even when – unlike here – an owner of an essential facility did have incentives to discriminate against downstream rivals.

Finally, if (contrary to all this analysis), a real potential for economic abuse did arise in the future, antitrust law on monopolization and essential facilities would stand ready to correct it. Antitrust law would do so through carefully limited conditions that have developed over decades of caselaw. There is no reason for the FCC to ignore the limits put on essential facilities doctrine. Nor is there any reason for the FCC to act in haste when antitrust law already provides an adequate remedy for any anticompetitive concerns the FCC might have.

ATTACHMENT B

The Appropriateness of Nondiscriminatory Access Regulation for Interactive Television

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I. INTRODUCTION

A. Qualifications

Marius Schwartz is Professor of Economics at Georgetown University. From September 1998 through May 2000 he served at the Antitrust Division of the U.S. Department of Justice as the Economics Director of Enforcement, and for six months also as the Acting Deputy Assistant Attorney General for Economics. His responsibilities included overseeing the economic analysis of telecommunications matters. From April 1995 to June 1996 he served at the President's Council of Economic Advisers as the Senior Economist responsible for industrial organization matters, working extensively on telecom issues including the 1996 Act. He has consulted on competition and regulation for governmental agencies and private clients.

John Gale is a Senior Associate with The Brattle Group. He has advised private clients on numerous telecommunications issues and has previously submitted comments to the Commission on Navigation Devices and Digital Radio.

The Federal Communications Commission (Commission) has issued a Notice of Inquiry in the Matter of Nondiscrimination in the Distribution of Interactive Television Services Over Cable (Notice).[1] We have been asked by the National Cable Television Association to comment on the economic issues raised by the Notice with regard to possible regulation of cable access for providers of Interactive Television (ITV) services.

B. Summary

The Notice raises numerous questions, including: What constitute ITV services? What will be required for their delivery? What is the likelihood that cable will possess significant market power relative to other distribution platforms for supporting ITV? What are the likely business arrangements that will emerge? The Notice also asks ".. whether promulgation of rules is appropriate at this time."[2] We focus our comments on this critical question. The great uncertainty over the other issues – indeed, the fact that these issues are even raised – points to one conclusion: that ITV regulation at this time is decidedly premature.

It is widely acknowledged that regulation is typically quite costly and, once imposed, is difficult to remove or modify when conditions evolve to require such adaptation. In our view, this implies a significant hurdle to justify the imposition of new regulation. First, there must be considerable confidence that the facility to be regulated

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[1] "In the Matter of Nondiscrimination in the Distribution of Interactive Television Services Over Cable," CS Docket No. 01-7, Notice of Inquiry, Adopted: January 12, 2001, Released: January 18, 2001.

[2] Notice, ¶ 20.

is likely to possess considerable and enduring market power – that competition from other facilities is unlikely. In addition, there must be sufficient confidence that regulation will be reasonably effective at achieving its purported goal(s), and will do so without imposing greater harm in the process. The latter is quite doubtful in the case at hand – cable access for ITV services – and certainly at this point in time, given the technological complexities and the great uncertainty about these services and what they require. We also believe that the case has not been made – indeed cannot be made at this time – that cable or any other platform is likely to possess enduring market power over ITV services, which today remain largely undefined. We develop these points below, and conclude that they cast serious doubt on the wisdom of imposing ITV-related regulation on cable platforms, or any other conduit, at this time.

II. Regulating Nondiscriminatory Access for ITV Service Providers: Rationale and Drawbacks

A. Proffered Rationale for Access Regulation

The Notice raises the possibility that video signals carried over the cable platform may prove to be a vital input for providing ITV services, and one for which no good substitutes may be available. Under these assumptions, an unregulated cable operator that vertically integrates into the provision of ITV services may command market power over such services. The central concern expressed in the Notice is that such an integrated entity may have incentives to deny, or grant on inferior terms, cable carriage to would-be independent providers of ITV services in order to protect its affiliate from competition.[3] It is hoped that regulation of cable access (the input, or "wholesale" service), would prevent discrimination and thereby ensure robust competition in ITV services (the output, "downstream" service, or "retail" service).

One cannot presume that even an input monopolist would necessarily have strong incentives to significantly disfavor rivals of its downstream affiliate: those retail-market rivals are also its customers for access services, so handicapping them entails a loss of profitable access sales. To the extent that independents may be more efficient than the monopolist's affiliate or provide valuable variety to consumers, discriminating against them will cause a significant reduction in the monopolist's access business, and therefore may prove unprofitable.

Nevertheless, access discrimination can be profitable under certain circumstances (e.g., to sustain price discrimination downstream or, if downstream competition is significantly imperfect, to shift downstream profits from rivals to the affiliate). For the sake of argument, therefore, let us consider the hypothetical case where a cable company would have (1) significant market power, and (2) significant

[3] "… we adopt the hypothetical assumption that cable operators are likely to have the incentive and the ability to favor affiliated ITV service providers over non-affiliated ones." Notice, ¶ 21.

incentives to bias the downstream competition in favor of its affiliate. Under these assumptions, there would be a potential benefit from access regulation aimed at limiting distortions of competition.

The possibility of potential benefits, however, is not sufficient to imply that regulation mandating nondiscriminatory access would be desirable, because regulation itself is quite imperfect. Whether, on balance, regulation is desirable will depend on its ability to address the various avenues of discrimination, *and* to do so without introducing prohibitive costs by imposing overly intrusive requirements and attendant distortions. The Notice seeks comment on various aspects of policing against discrimination: how to detect discrimination in access pricing against non-affiliated entities (¶ 24), the scope for access discrimination through quality or other non-price terms (¶¶ 26-30), and incentives to discriminate not only against competitors of the affiliate but also between such non-affiliated entities (¶ 22). These questions are all valid, and they suggest that regulating nondiscriminatory access will be a complex and difficult task.

B. Problems with Access Regulation

1. Pricing

The Notice specifically asks how to determine if a discriminatory price for access is being charged and what benchmarks are available for evaluating discrimination claims.[4] The issue is indeed problematic. Suppose one only required that the affiliate and its rivals be charged the same "non-discriminatory" access price, without regulating its level or an affiliate's retail price. Such regulation will be largely ineffective. For example, assume that the firm wished to charge the affiliate an access price of 5 and its rivals an access price of 10, and the affiliate would set a retail price of 12; the firm could charge 10 to all, and instruct the affiliate to ignore the access price of 10 – which is an intra-firm transfer – and to still set a retail price of 12. In the example, the rivals would face the same handicap in competing as they would absent any regulation. Requiring only a uniform ("nondiscriminatory") access price, therefore, is not enough.

One response can be to also propose to regulate the affiliate's retail price, e.g., by requiring it to impute to itself the arm's length access price or by imposing explicit price floors on the affiliate. Such retail price regulation, however, rapidly embroils regulators in difficult issues of refereeing imputation issues, appropriate costs for non-access items, cost allocations, and the like.

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[4] "We are particularly interested in suggested procedures for evaluating claims by ITV service providers that a cable operator is charging a discriminatory price for access to cable facilities. Recognizing that the cable operator might not be furnishing facilities to its affiliated ITV provider at a market rate, what benchmarks are available for evaluating discrimination claims?" Notice, ¶ 24.

Another response is to regulate the access price charged to independents below the level that the firm would set. As is well known, determining the "right" access price can be a daunting task.[5] Moreover, the more constraining is price regulation, the stronger are the firm's incentives to disfavor its affiliate's competitors by restricting their access through non-price methods.

2. Non-Price Discrimination

As we have just shown, there are significant difficulties with regulating price discrimination that make it questionable as a tool to restrain firms with significant market power inclined to favor an affiliate. The foregoing assumes significant market power, which does not apply in nascent markets where market position has not been established. But let us suppose that there is a firm with market power discriminating in favor of an affiliate and that price regulation for access for unaffiliated downstream firms can be accomplished. Constraining the ability to profit from selling access to independents will bias the firm to try to undermine them, by forms of nonprice discrimination. Nonprice discrimination can be in the form of raising independents' costs [MS: how does this work in this context?] or degrading their quality. The goal of such nonprice discrimination would be to enable the affiliate to raise price and increase its share in the retail market. Thus, an unfortunate unintended consequence of tight price regulation can be to engender more nonprice discrimination.

Non-price access discrimination can be both hard to police and quite wasteful. "Nondiscrimination" is a superficially appealing concept, but operationalizing it raises a host of difficulties when firms are heterogeneous in their access requirements and in the costs of serving them.[6] Regulation aimed at securing nondiscrimination may then be ineffective or prohibitively inefficient if regulation imposes excessive uniformity and rigidity, especially if the firm has at its disposal numerous ways of discriminating.[7]

The severity of this problem will vary with the particular circumstances of an industry. If the technology is simple and mature, the problem will be less serious. Conversely, when the technology is complex and changing rapidly, the likelihood that regulation will be efficient diminishes. The case at hand is one where technology is

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[5] Even in well established markets regulated by the Commission, determining non-discriminatory access prices has been a continuing challenge.

[6] For a discussion in the context of unregulated markets see Marius Schwartz, "The Perverse Effects of the Robinson–Patman Act," *Antitrust Bulletin*, 31, (Fall 1986), 733-757.

[7] One must remember that the proper goal of "nondiscrimination" policies is not merely to level the playing field, but to level it up not down. See Joseph Farrell, "Creating Local Competition," *Federal Communications Law Journal*, November 1996 <*http:/www.law.indiana.edu/fclj/v49/no1/farrell.html*>. The Notice acknowledges the risk that "nondiscrimination" may degenerate into excessive uniformity. For example, ¶ 34 asks: "How could such provisions [requiring the same quality regardless of whether a request is transmitted on behalf of an affiliated or an unaffiliated ITV service provider] be implemented in the case of a cable-owned ISP provider that wishes to offer subscribers a choice among multiple levels of service quality?"

relatively complex and rapidly evolving,[8] hence regulation is likely to be difficult and to spawn considerable distortions. This impression is consistent with questions raised in the Notice about the various forms that technical discrimination may take and the difficulty of curbing them. (¶¶ 26-30, 32-34).

In the Notice, the Commission discusses specific capacity regulation intended to achieve nondiscrimination.[9] Structural solutions, such as the limitation on capacity that vertically integrated cable systems may provide to their affiliated programmers,[10] can be reasonably effective in certain cases. This is more likely to be true when the product or service is clearly defined, quality levels are easily measured, and qualified participants can be readily identified and are reasonably homogeneous. When these conditions are not met, however, then structural regulation—like conduct regulation—can be quite difficult and introduce significant distortions. This is likely to be the case for ITV services, as suggested by the variety and depth of the Commission's own questions.

Attempting to regulate the myriad possible ways in which a cable provider might seek to favor its ITV affiliate versus competitors – assuming it would have the ability and incentive to do so – is therefore likely to entail significant intrusion into technical and operational decisions. Moreover, as the Notice intimates, discrimination need not be confined to favoring an affiliate.[11] Discrimination might also be targeted to favor certain unaffiliated ITV service providers over others, to the extent the access provider can – through contractual or other arrangements – capture enough of the profits accruing to those unaffiliated entities favored by its discrimination. This possibility

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[8] "The nature of ITV services is evolving rapidly, with constant and continuous technological changes and evolving business models…" Notice, ¶ 6.

[9] "For example, if both affiliated and unaffiliated ITV providers have contracted with a video signal provider to enhance its programming, it would be possible to require the cable operator to provide the same amount of "enhancement bandwidth" to both." Notice, ¶ 26. "Another approach would be to consider requiring the cable operator to declare the total bandwidth that it is willing to provide for ITV enhancements and then to impose a requirement that this operator-selected total bandwidth be allocated in nondiscriminatory fashion among affiliated and nonaffiliated ITV service providers." Notice, ¶ 26. "…consider adopting a narrower nondiscrimination requirement, requiring that cable operators devote some fixed minimum capacity per unaffiliated video channel to transmitting the ATVEF triggers associated with that channel, but not face an obligation regarding other ITV enhancement content." Notice, ¶ 28.

[10] See 47 C.F.R. § 76.504 which prohibits cable operators from devoting more than 40 percent of their first 75 channels to affiliated content. Described in Notice, ¶¶ 21, 27.

[11] The Notice (¶ 22) asks: "Alternatively, does market power in high speed distribution create incentives for cable operators to forge agreements with one or a limited number of ITV service providers, even without actual ownership of an ITV service provider, and deny the rest access to cable subscribers?" See also ¶ 3: "Commenters arguing in favor of regulatory actions … should also provide recommendations on … whether the [nondiscrimination] principle should be applied to cable television operators unaffiliated with an ITV provider."

prompts questions such as "… how to decide on the amount of cable video capacity to be reserved for unaffiliated content providers pursuant to a nondiscrimination rule … and how should it be divided among those unaffiliated providers." (Notice, ¶ 30).

A policy that tries to forestall the many possible avenues of technological discrimination among affiliated or unaffiliated providers would thus take the Commission down a dangerous path of micro managing decisions such as the allocation of the cable spectrum, the quality of service, etc. Adopting such a course would constitute an unfortunate departure from the Commission's direction in other areas, such as the wireless spectrum, where it is seeking to allow more flexibility by relying more on market-oriented mechanisms.

In short, seeking to enforce nondiscriminatory access to the cable plant for providers of ITV services is likely to impose considerable costs, even if it is determined to have some benefits. Could the benefits of imposing such regulation at some future date outweigh these costs *if* is turns out that cable possesses durable market power and has strong incentives to discriminate? We have not tried to answer this question, because we strongly believe that imposing regulation *today* is clearly premature, on two grounds. First, the nature of ITV services and their access requirements remain too uncertain. Second, and related, the hypothetical premise that cable will have durable monopoly in supporting ITV services is too speculative given both the uncertainty over the requirements of ITV services and the emergence of other distribution conduits. We address these points in turn.

III. The Nature of ITV Services and their Access Requirements Are Still Largely Unknown

To be efficient, regulation must be targeted to the problem. Otherwise, it will be ineffective at accomplishing its goal, while at the same time imposing significant collateral harm. But how can one design regulation to ensure nondiscriminatory access for ITV service providers when, as is true today, so little is known with confidence about the nature of these services and their access requirements? Without having a fairly clear notion of what the market will be, any regulatory "solution" may not be on point, yet is likely to distort choices of both technology and business arrangements.

At this early stage in ITV market development, it remains largely unknown which types of vertical relationships between ITV services providers and delivery platforms are most efficient. The creation of some content, delivery technology, and customer premises equipment may have to be very closely coordinated and require vertical integration, while other services may be efficiently provided through vertical contracts. Regulation of vertical relationships in the ITV market—such as restricting certain vertical relationships (e.g., by requiring and integrated firm to behave as though it were not integrated)— may seriously raise transaction costs and limit the variety and quality of services available to consumers. This is especially likely when specialized equipment and services must be developed and provided to consumers simultaneously.

The technology of ITV also remains largely unknown. Devising regulation for a new market with quickly developing technology may have the unintended effect of government standard setting in the market. It has been well recognized that the ability of government agencies to mandate appropriate standards, in order to facilitate development of, and competition in, new markets is severely limited when technology and market structure are changing rapidly. The danger of distorting future outcomes through government standard setting, a risk characterized by Paul David as the "blind giant" quandary, is strongest with respect to technologies and markets that are changing rapidly.[12] In a review of a number of case studies of standard setting in the broadcast industry, Besen and Johnson conclude that "The government should refrain from attempting to mandate or evaluate standards when the technologies themselves are subject to rapid change."[13] The same restraint that should be employed in standard setting should be shown towards regulation.

Imposing premature regulation of technology choices and business arrangements may therefore foreclose certain technical innovation and variety, raise the costs or degrade the quality of those options that do emerge, and restrict efficient forms of business relationships. The Commission has dealt with the issue of nondiscriminatory access many times in the past (e.g., local and toll telephone competition, more recently, in the AOL Time Warner merger). When the factual situation becomes clearer, there is much past experience that can be drawn upon to craft the appropriate regulatory response, if a response proves to be necessary. However, the issue may not arise because we may learn that cable lacks durable market power over ITV services.

IV. Cable Platforms Are Unlikely to Have Market Power

The Commission properly notes that the predicate for regulation is market power possessed by the relevant distribution platform.[14] The Commission invites comments on the likelihood that a particular distribution platform will have market power in the future. The existence of market power for a particular ITV delivery platform is dependent on two circumstances: 1) due to technical reasons, a platform is significantly better suited for the delivery of the ITV services to be developed and, subsequently, desired by consumers; and 2) the platform does not face competition from separately owned platforms of the same type.

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[12] P.A. David, "Some new standards for economics of standardization in the information age," in P. Dasgupta and P. Stoneman (editors), *Economic Policy and Technological Performance,* Cambridge: Cambridge University Press, 1987, P. 210

[13] S.M. Besen and L.L. Johnson, *Compatibility Standards, Competition, and Innovation in the Broadcasting Industry,* RAND Corporation, R-3453-NSF, November 1986, Chapter VII, p. 135.

[14] "Recognizing the complex nature of ITV services, we seek comment on the predicate for regulation – market power possessed by the owner of a distribution platform vertically integrated into ITV services." Notice ¶ 38.

A. Likelihood that A Given Platform Will Be Clearly Superior

The Notice indicates that "ITV services" are likely to be numerous and diverse.[15] We would expect that different delivery platforms will have different technical advantages with respect to different types of ITV services. In addition, platforms will attempt to differentiate the bundle of services they offer from those offered on competing platforms.[16] Therefore, even if cable systems were somewhat better suited than other platforms to offer some types of ITV services, this would not establish that cable has the substantial degree of market power in an ITV services market that is necessary to justify regulation.[17]

The Notice acknowledges that every platform, including cable, faces significant technical challenges in delivering predicted ITV services: cable and DBS have significant downstream bandwidth but are in the process of developing adequate upstream capacity; DSL delivery of multichannel video programming distributors (MVPD) services is at an early stage of development; and digital terrestrial television licensees have sufficient capacity to transmit ITV enhancements,[18] but lack integrated upstream capacity. (¶ 19) While cable may have an edge in certain aspects, it currently does not appear to have obvious and broad technical advantages. Many cable systems currently face upstream restrictions qualitatively similar to those faced by DBS providers. This upstream component is a critical part of offering the types of ITV services envisioned in the Notice. (¶ 12) The Notice points out that downstream bandwidth inhibits DSL from offering more than one unique video channel from a central location to any individual subscriber; this bandwidth limitation may not be as constraining, however, for certain ITV services.

The examples of ITV services available today also fail to demonstrate that cable has a distinct advantage over other platforms. AOL offers a standalone ITV-STB which can function with either cable or DBS (¶ 16); versions of WebTV are available via cable, DBS, and terrestrial broadcast television (¶ 18).

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[15] Notice ¶ 6.

[16] For example, competition in the delivery of video programming between cable systems and Direct Broadcast Satellite systems has often focused on the different programming they carry: local broadcast stations unique to cable and sports packages unique to DBS.

[17] For example, if there was evidence that DBS systems are best suited to provide a complete selection of NFL games, this would not indicate that DBS has market power in a video services market.

[18] Terrestrial broadcasters are organizing to offer new services over digital channels: "In addition, broadcasters have formed two additional consortia to combine DTV spectrum to allow third parties to deliver services to consumers, including content delivery to televisions and computers." [footnote omitted] "Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming," CS Docket No. 00-132, Seventh Annual Report, Adopted: January 2, 2001, Released: January 8, 2001, ¶ 102.

Moreover, to the extent that cable did possess some significant early advantages, the hazards of trying to predict durable advantages of one platform based largely on its being the first to market are illustrated by broadband internet access. Cable may have some technical advantages over other delivery platforms and currently has more subscribers. Alternative delivery platforms are quickly catching up, however, and are increasingly constraining any market power that may have initially existed.[19] In a recent report, the Commission staff stated: "As deployment of DSL, Satellite, and wireless advances, in large part spurred by rapid cable modem deployment, consumers will have alternative platforms to use for high-speed data access, telephony, and video services.[footnote omitted]… We believe for now that the emergence of alternative broadband providers, with their competitive service offerings, features, and prices, mitigates the risk that cable will become the gatekeeper to the Internet."[20]

B. Competition Faced by a Technically Superior Platform

At this point, it is simply too early to tell with the requisite degree of confidence whether cable systems will have market power in the delivery of ATV services and will use that market power to discriminate against unaffiliated ATV service providers. As ITV services, delivery methods, and market relationships develop it may become clear that one delivery platform is technically superior. Even in such a case, there remains the second requirement for market power: the superior platform does not face competition from separately owned platforms of the same type. It is too early to tell what will be the scope of same platform competition.

V. Conclusion

The Notice asks whether "at least in the near term" cable plant is likely to be the superior platform for distribution of high speed ITV services.[21] But in the near term, ITV services are not even defined, so the relevant horizon is necessarily longer. Looking ahead over this longer horizon, there is simply insufficient basis today for concluding that cable will develop and retain substantial and durable market power for providing ITV services. For this reason, and because access requirements remain so uncertain,

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[19] In its Seventh Annual Report on Competition in Video Markets, the Commission states: "Analysts predict that by year-end 2000, there will be over 1.7 million DSL subscribers, compared to only 445,000 subscribers by year-end 1999. [footnote omitted] Some analysts predict that there will be more residential DSL subscribers than cable modem subscribers by 2002." [footnote omitted] "Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming," CS Docket No. 00-132, Seventh Annual Report, Adopted: January 2, 2001, Released: January 8, 2001. ¶ 52.

[20] "Broadband Today: A Staff Report To William E. Kennard, Chairman, Federal Communications Commission, On Industry Monitoring Sessions Convened by Cable Services Bureau," Deborah A. Lathen, Bureau Chief, Cable Services Bureau, October 1999.

[21] "This *Notice* addresses the question of whether, at least in the near term, the modern cable television plant is likely to be the superior platform for distribution of high speed ITV services." Notice, ¶ 3.

we conclude that imposing regulation on the cable platform – or indeed any other – related to the provision of ITV services is quite premature. Such regulation may prove unnecessary because of the growth of competing facilities; and imposing regulation today is likely to reduce incentives to invest in development or enhancement of requisite infrastructure, and is sure to impose considerable costs.